IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION

WHOLE WOMAN'S HEALTH, PLANNED PARENTHOOD CENTER FOR CHOICE, PLANNED PARENTHOOD OF GREATER TEXAS SURGICAL HEALTH SERVICE, PLANNED PARENTHOOD SOUTH TEXAS SURGICAL CENTER, ALAMO CITY SURGERY CENTER PLLC, SOUTHWESTERN WOMEN'S SURGERY CENTER, NOVA HEALTH SYSTEMS, INC., CURTIS BOYD M.D., JANE DOE, M.D., M.A.S., BHAVIK KUMAR, M.D., M.P.H., ALAN BRAID, M.D., ROBIN WALLACE, M.D., M.A.S.,	) AU:17-CV-00690-LY
Plaintiffs,	)
v.	) AUSTIN, TEXAS
KEN PAXTON, MARGARET MOORE, NICHOLAS LAHOOD, JAIME ESPARZA, FAITH JOHNSON, SHAREN WILSON, RICARDO RODRIGUEZ JR., ABELINO REYNA, KIM OGG,	)
Defendants.	) NOVEMBER 2, 2017

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TRANSCRIPT OF BENCH TRIAL
VOLUME 1
BEFORE THE HONORABLE LEE YEAKEL

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EXAMINATION INDEX

EXHIBIT INDEX

09:00:56 (Open court)

09:00:56 THE COURT: We're here this morning to commence the bench trial in Cause Number 17-CV-690, *Whole Woman's Health*, and others, *v. Ken Paxton*, *Attorney General of Texas*. Are the plaintiffs ready to proceed?

09:01:11 MS. CREPPS: We are, Your Honor.

09:01:13 THE COURT: Is the defendant ready to proceed?

09:01:14 MR. MCCARTY: We are, Your Honor.

09:01:15 THE COURT: All right. The plaintiff may call its first witness.

09:01:19 MS. CREPPS: Your Honor, just before I call Dr. Nichols, we did provide you a list this morning with the exhibits that are coming in without objection.

09:01:29 THE COURT: Yes. Let me deal with that right now. And you-all pay attention when I read this to make sure I got this correct. I understand the admissibility of these exhibits is not objected, and so at this time the Court will admit into evidence Plaintiffs' Exhibits 1, 10, 144 through 150, inclusive, and 153.

09:02:00 And will also admit into evidence Defendants' Exhibits 1, 8, 9 through 11, inclusive, 26 through 31, inclusive, 33, 46 through 49, inclusive, 56 through 61, inclusive, 65, and 66, 70, 88, 89, 91, 97, 105, 106, and 107.

09:02:37 Is that correct?

09:02:37 MS. CREPPS: Yes, Your Honor. Thank you.

09:02:38 THE COURT: Those exhibits are admitted.

09:02:43 MS. CREPPS: We'd like to call Dr. Mark Nichols.

09:02:46 MR. MCCARTY: Your Honor, one thing from Defendants.

09:02:48 We would like to invoke the Rule, please.

09:02:51 THE COURT: All right.

09:02:53 MR. MCCARTY: For any lay witnesses.

09:02:54 THE COURT: The Rule has been invoked. Are there any

09:02:58 witnesses present in the courtroom who are not party

09:03:01 representatives that are expected to testify at this time?

09:03:06 MR. LAWRENCE: Yes, Your Honor. We'll escort them

09:03:08 out.

09:03:09 THE COURT: All right. Let me state, then, the Rule

09:03:10 is invoked, which means, with the exception of party

09:03:13 representatives and any other exception that the Court may

09:03:16 make, the only witnesses -- well, the only people that may be

09:03:21 in the courtroom will be non-testifying witnesses. The parties

09:03:24 will instruct their witnesses that the Rule has been invoked,

09:03:27 and they're not to talk to anyone about this case except for

09:03:32 the attorneys until they're released from the Rule.

09:03:41 And let me ask you -- there are a large number of

09:03:42 attorneys present here at each table. Looks a whole lot like a

09:03:48 patent case. Let me just ask each of you, whenever you're

09:03:51 going to participate or say something, if you will announce

09:03:56 your name so the court reporter will have the proper person who

09:04:00 is questioning. I think that will be easier than going through

everybody's name and then trying to again figure it out when somebody else gets up.

So any lawyer, when you get ready to speak, if you'll just state your name before you start your questioning or your statements or anything like that, it would be helpful of to us.

MS. CREPPS: Thank you, Your Honor. Janet Crepps for the plaintiffs, and we would like to call Dr. Mark Nichols.

(Witness sworn)

THE COURT: You may proceed.

MS. CREPPS: Thank you.

MARK D. NICHOLS, M.D.,

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MS. CREPPS:

Q. Would you please state your name for the record.

A. My name is Mark David Nichols.

Q. And can you spell your last name, please.

A. N-i-c-h-o-l-s.

Q. And, Dr. Nichols, what is your profession?

A. I am an obstetrician-gynecologist.

Q. Where are you employed?

A. I work at Oregon Health and Science University in Portland, Oregon.

Q. And what does your current work at what I'll refer to as OHSU involve?

09:05:29 A. I provide the full spectrum of reproductive health care
09:05:34 services. So that involves prenatal care, delivering babies,
09:05:40 gynecological services in the clinic setting, surgeries, and
09:05:44 abortion and contraception care.
09:05:46 Q. Do you have other responsibilities?
09:05:49 A. Yes. I at the moment am working half-time, and so I've
09:05:55 passed off a number of my administrative duties. But I still
09:05:59 continue to teach the residents and fellows and medical
09:06:03 students in that capacity.
09:06:06 Q. And how long have you been affiliated with OHSU?
09:06:09 A. I joined the faculty in 1979 and -- I'm sorry -- in 1984.
09:06:18 I started the residency in 1979. But since 1984 I've been on
09:06:25 the faculty there. So for 33 years.
09:06:27 Q. Are you board certified in obstetrician and gynecology --
09:06:33 obstetrics and gynecology?
09:06:33 A. Yes.
09:06:34 Q. And can you describe briefly your educational background.
09:06:38 A. I attended University of California Davis Medical School
09:06:43 between 1975 and 1979, and then took four years in residency at
09:06:50 OHSU from 1979 to 1983.
09:06:55 Q. And can you describe for the court what roles you've had
09:06:58 during your time at OHSU.
09:07:01 A. I've had multiple. My main administrative role is as the
09:07:06 head of the division of general gynecology and obstetrics. I
09:07:11 also served as a medical director at Planned Parenthood, and

09:07:16 that was a joint appointment between OHSU and Planned
09:07:21 Parenthood. And I started a fellowship in family planning at
09:07:28 OHSU.
09:07:29 Q. And can you describe that fellowship and your role there.
09:07:33 A. That started in the year 2000. And, briefly, a fellowship
09:07:39 and family planning is a two-year training program after
09:07:41 residency in obstetrics and gynecology, where fellows become
09:07:48 experts in contraceptive care and abortion care.
09:07:51 Q. And what are your -- I think you may have said this
09:07:55 already. In your half-time clinic responsibilities now, what
09:08:00 do you do?
09:08:01 A. As I mentioned, the full spectrum of reproductive health
09:08:08 services, and I continue to teach and do research.
09:08:10 Q. Can you tell the Court more about your experience
09:08:12 providing abortion care, starting with when you first started
09:08:15 to provide abortions.
09:08:17 A. As a resident we were instructed on abortion care. And I
09:08:27 learned how to perform abortions during that time and continued
09:08:30 on as a faculty member providing services and then ultimately
09:08:33 teaching residents and medical students and fellows about
09:08:37 abortion care.
09:08:38 Q. So you have -- go ahead. Sorry.
09:08:40 A. And we are a referral hospital and have patients coming to
09:08:49 us with a variety of medical conditions and fetal diagnoses,
09:08:55 where women choose to terminate pregnancy. So we get a lot of

09:08:59 referrals as well.
09:09:00 Q. At what gestational ages have you provided abortions?
09:09:05 A. The State of Oregon doesn't have an upward gestational age
09:09:10 limit, so we go from the beginning of pregnancy and far into
09:09:15 the pregnancy, depending upon the situation.
09:09:18 Q. And what methods have you used to provide abortions?
09:09:25 A. Well, both medical and surgical abortion techniques are
09:09:30 services that I offer, and both in the first and second
09:09:35 trimester.
09:09:36 Q. Have you ever undertaken a procedure to induce fetal
09:09:40 demise prior to removal of the fetus from the uterus?
09:09:44 A. Yes.
09:09:44 Q. And what method is that?
09:09:46 A. I have injected Digoxin to cause fetal demise.
09:09:51 Q. And you mentioned that you have also provided care at
09:09:57 Planned Parenthood. Can you describe that work?
09:10:01 A. So I work -- have worked and continue to work, on
09:10:04 occasion, for the affiliate in Oregon called Planned Parenthood
09:10:09 of Columbia Willamette that is a affiliate that has six clinics
09:10:17 around the state. And while I was medical director for
09:10:20 approximately 20 years, I was responsible for the medical care
09:10:24 that was provided in that affiliate. And that meant overseeing
09:10:28 the care provided by the nurse practitioners and other
09:10:33 clinicians in our setting. I also was responsible for
09:10:38 evaluating performance and managing a budget, and I also wrote

protocols based on the standards and guidelines from Planned Parenthood that directed the care provided there.

Q. And what's your current work with Planned Parenthood?

A. In my current role, I work there occasionally when asked, when they have a need.

Q. And throughout the time that you have worked at and with Planned Parenthood, has that included the provision of abortion services?

A. Yes.

Q. Have you had any involvement with Planned Parenthood at the national level?

A. Yes. I served on the National Medical Committee of Planned Parenthood between 1996 and 2002, and within the last year I've been appointed to the National Board of Directors of Planned Parenthood.

Q. And can you describe what the Medical Committee is?

A. The National Medical Committee serves the Federation to provide medical standards and guidelines, and these are documents that lay out what the basics of medical care in Planned Parenthood should be. And they give direction to each of the affiliates to create their own protocols by which care is provided.

Q. If you could estimate, approximately how many women would you say you've provided with prenatal and obstetric care over your career?

09:12:14 A. Boy. I -- I don't have an exact number, but many
09:12:17 thousands.
09:12:18 Q. And approximately how many women would you say you've
09:12:22 provided abortion care over your career?
09:12:25 A. Again, I don't know an exact number, but many thousands.
09:12:30 Q. And can you give the Court an idea of how many OHSU
09:12:36 residents and fellows you've trained in abortion care?
09:12:40 A. So, having been there now on faculty for 33 years, we have
09:12:47 currently six residents per year. Before that time there
09:12:51 was -- sorry. There are now seven. There used to be six. But
09:12:55 over 33 years, well over 200 residents I've trained in
09:13:01 performing abortions. And in our fellowship about 12, as I
09:13:07 recall, fellows I've trained in abortions.
09:13:10 Q. And does that include training in second-trimester
09:13:13 abortion procedures?
09:13:14 A. Yes.
09:13:15 Q. Have you done any research related to abortion?
09:13:19 A. Yes.
09:13:20 Q. Can you describe that?
09:13:21 A. My main interest in abortion research has been in trying
09:13:29 to minimize pain during surgical procedures, mostly in the
09:13:33 first trimester.
09:13:35 Q. And have you authored or coauthored any peer-reviewed
09:13:42 articles?
09:13:42 THE COURT: Pardon me. Let me interrupt just a

09:13:45 minute. The courtroom is getting a little crowded. Let me ask
09:13:47 the people in the courtroom to do something, please. Will you
09:13:50 not jam up any more than you have to there, but back out along
09:13:54 the side walls and the back wall. Just kind of spread out.
09:13:58 And those of you that are seated, please bunch up where as many
09:14:01 people as they can get seats.
09:14:03 I'm going to give you the judicial disclaimer on
09:14:06 this. This is a fine building. But at the end of the day, it
09:14:09 was built by your government. And Judge Sparks and I fought
09:14:15 for eight years to convince the General Services Administration
09:14:20 and the Administrative Offices of the Courts and the Congress
09:14:23 that the seating areas in the courtrooms were too small. It is
09:14:29 probably the only great mistake they made on this.
09:14:33 But the government had a design guide, and there was
09:14:36 no talking to them about it. So you're just going to have to
09:14:43 bear with us. This is an open proceeding. I want everyone
09:14:46 that wants to observe it to have an opportunity to be here and
09:14:51 be in the courtroom. But we're going to have to ask for your
09:14:56 help a little bit.
09:14:59 If you're really, really uncomfortable, when you
09:15:00 leave, please write your congressmen and your senators about
09:15:04 seating in the courtrooms in the new courthouse in Austin. So
09:15:13 if you'll bear with us, everybody will have an opportunity to
09:15:13 observe what's going on.
09:15:13 So now you may proceed, Ms. Crepps.

MS. CREPPS: Thank you.

Q. Let me re-ask the question. So I had asked if you had authored or coauthored any peer-reviewed articles.

A. Yes, I have.

Q. And approximately how many?

A. I believe about 65.

Q. And are any of those on the topic of abortion?

A. A lot of them are related to abortion, but not all.

Q. All right. And are you a peer reviewer for any nationally published medical journals?

A. Yes, I am. I'm on the editorial board for the *Journal of Contraception*, and I review papers submitted to several journals, including *Obstetrics & Gynecology,* the *American Journal of Obstetrics & Gynecology,* the *New England Journal of Medicine*, and a few others.

Q. And, in addition to reviewing articles for journals, as part of your practice, do you regularly review the medical literature related to abortion?

A. Yes.

Q. And does that include the literature related to fetal demise?

A. Yes.

Q. So you have a big white binder in front of you. Can you please turn to tab 3.

A. Which one? Sorry.

09:16:33 Q. Number 3.
09:16:34 A. Three.
09:16:40 Q. Okay. And is this your CV?
09:16:43 A. Yes.
09:16:44 Q. And is it an accurate summary of your educational
09:16:48 background and professional history and your publications?
09:16:51 A. Yes, it is.
09:16:53 MS. CREPPS: Your Honor, at this time we would move
09:16:55 to admit Exhibit 3 into evidence as evidence in support of our
09:17:00 upcoming motion to qualify Dr. Nichols as an expert.
09:17:05 MR. MCCARTY: Your Honor, Darren McCarty for
09:17:09 Ken Paxton, the Attorney General.
09:17:11 We do not -- we object to the admission of
09:17:15 Dr. Nichols' CV as hearsay. There's no exception for his
09:17:17 hearsay. Ms. Crepps has done a thorough voir dire on
09:17:23 Dr. Nichols.
09:17:28 THE COURT: Ms. Crepps?
09:17:29 MS. CREPPS: Your Honor, I don't believe that it's
09:17:31 hearsay. I think that it's evidence in support of our motion
09:17:36 to have Dr. Nichols qualified as an expert. It's certainly
09:17:41 been a common practice for judges to accept these CVs so that
09:17:46 they can review them without me having to have the witness read
09:17:50 extensively in order to make sure that all of his
09:17:52 qualifications are in the record.
09:17:54 THE COURT: Well, I believe that Plaintiffs' Exhibit

09:17:57 Number 3 is a summary of the qualifications to which
09:18:01 Dr. Nichols has testified. The objection is overruled, and
09:18:05 Plaintiffs' Exhibit Number 3 is admitted.
09:18:11 MS. CREPPS: Your Honor, at this time Plaintiffs'
09:18:13 tender Dr. Nichols as an expert in obstetrics and gynecology,
09:18:18 including the provision of abortion care and second-trimester
09:18:22 abortions.
09:18:24 MR. MCCARTY: No objection, Your Honor.
09:18:24 THE COURT: All right. Dr. Nichols will be allowed
09:18:27 to testify as an expert and testify as to conclusions and
09:18:34 opinions regarding the matters as designated by you,
09:18:36 Ms. Crepps.
09:18:37 MS. CREPPS: Thank you.
09:18:39 Q. Dr. Nichols, you understand that in this lawsuit the
09:18:41 plaintiffs are challenging provisions of Texas Senate Bill 8;
09:18:45 is that correct?
09:18:45 A. Yes.
09:18:46 Q. Have you reviewed the provisions of Senate Bill 8 that are
09:18:51 challenged in this case?
09:18:51 A. Yes, I have.
09:18:52 Q. Can you turn to Exhibit 1 in the binder.
09:19:01 MS. CREPPS: Your Honor, Exhibit 1 has come in
09:19:02 without objection.
09:19:09 Q. And directing your attention to the bottom of page 5 --
09:19:17 A. Yes.

09:19:18 Q. -- does that section contain a definition of what the bill
09:19:24 describes as "dismemberment abortion"?
09:19:29 A. Yes.
09:19:29 Q. Is "dismemberment abortion" a medical term?
09:19:33 A. No.
09:19:34 Q. Based on your review of the definition, is it your opinion
09:19:37 that it encompasses any methods of performing abortion that
09:19:41 you're familiar with?
09:19:44 A. Well, I perform a procedure called a dilation and
09:19:49 evacuation. I believe that the description of, quote,
09:19:56 dismemberment abortion, close quotes, is an attempt to describe
09:20:03 a procedure that I perform. I would not use the same wording
09:20:08 as was used here, but I think it is attempting to describe a
09:20:15 dilation and evacuation, or D&E, as we call it.
09:20:20 Q. And do you understand from your reading of SB 8 that
09:20:26 before a physician could use forceps to remove the fetus, he or
09:20:30 she would first have to induce fetal demise?
09:20:33 A. Yes.
09:20:34 Q. With that understanding, can you give the Court an
09:20:39 overview of your opinions as to how SB 8 would impact on
09:20:43 abortion services in Texas.
09:20:45 A. Well, first, I'm most concerned about the health of the
09:20:52 women of Texas, and that's because they will have limited
09:20:57 access to abortion care. And, when it's needed, it should be
09:21:01 provided in a safe, careful way.

09:21:05 MR. MCCARTY: Your Honor, Darren McCarty for Attorney
09:21:08 General Paxton.
09:21:09 He has not been qualified as a legal expert as to the
09:21:13 impact of Senate Bill 8. He has been qualified as a provider
09:21:17 abortion and, specifically, second-term abortion.
09:21:20 THE COURT: Ms. Crepps?
09:21:21 MS. CREPPS: Your Honor, I think once we get into the
09:21:25 substance of Dr. Nichols testimony, you'll see that his
09:21:31 concerns are based on his concerns as an expert in the
09:21:33 provision of abortion care as to the difficult situation, or
09:21:37 impossible situation, because of the medical options available
09:21:42 that SB 8 is going to place on physicians.
09:21:45 THE COURT: Well, but Mr. McCarty is correct. He has
09:21:48 not been qualified as an expert on the law. I will let him
09:21:53 testify as to his personal observations and opinions, but I'm
09:21:59 not going to consider his testimony as a broad, sweeping
09:22:11 analysis of what the Senate Bill 8 means to the people of the
09:22:14 state of Texas.
09:22:15 MS. CREPPS: Very well, Your Honor.
09:22:18 Q. Dr. Nichols, you indicated that you had concerns about the
09:22:25 health of women in Texas should SB 8 take effect. Can you say
09:22:32 a little bit more about that and then we'll get into the
09:22:35 details.
09:22:36 A. In my medical opinion, I believe that the requirements to
09:22:41 meet SB 8 will require physicians to perform procedures on

09:22:46 1 women that would increase their risk of complications in
09:22:51 2 abortions, including infection and bleeding, delay in getting
09:22:55 3 their care, possible increased risk of injury to their uterus
09:23:01 4 during the procedures related to meeting the requirements of
09:23:05 5 SB 8. So that is my logic around the -- the impact on health
09:23:12 6 of the women of Texas.
09:23:14 7 Q. Before we get into the specifics of the bill, I'd like to
09:23:18 8 have you give the Court a brief overview of abortion in the
09:23:21 9 United States. In general, is abortion a commonly performed
09:23:25 10 procedure?
09:23:26 11 A. Yes. Approximately one-third of women in the U.S. will
09:23:30 12 have an abortion at some time in their life.
09:23:32 13 Q. And what are your opinions on the safety of abortion in
09:23:35 14 the United States?
09:23:37 15 A. Abortion is a very safe procedure. It's safer than
09:23:40 16 carrying a pregnancy to term, for example.
09:23:44 17 Q. And how would you describe the complication rates
09:23:49 18 associated with abortion?
09:23:52 19 A. Well, the -- if you compare it to other similar procedures
09:23:57 20 or similarly related medical issues, as I mentioned, the rate
09:24:01 21 of maternal death is lower in abortion care than carrying a
09:24:08 22 pregnancy to term. In terms of other related procedures of
09:24:12 23 medicine, things like colonoscopies and some dental procedures
09:24:17 24 carry greater risks than going through an abortion. So, in my
09:24:21 25 opinion, it's a very safe procedure.

09:24:23 Q. Do the risks associated with abortion change as the
09:24:26 pregnancy advances?
09:24:29 A. Yes. The risks of complications do increase with the
09:24:34 increasing gestational age of the patient.
09:24:38 Q. Before I have you describe the different methods of
09:24:41 abortion, can you explain the terminology that physicians use
09:24:44 to describe the length of pregnancy.
09:24:48 A. The length of pregnancy is defined as from the first day
09:24:52 of the last menstrual period, or LMP, so we commonly refer to
09:24:58 the gestational age as "from the LMP."
09:25:07 Q. Can you describe the -- in general, the different types of
09:25:10 abortion procedures.
09:25:11 A. So there are both medications and surgical abortion
09:25:16 procedures. In the case of medications, medicines are
09:25:21 administered to the woman that will end the pregnancy and then
09:25:26 additional medications that are used to cause the uterus to
09:25:30 expel the pregnancy.
09:25:38 On the surgical side, first there needs to be some
09:25:40 process of opening the cervix adequately to allow instruments
09:25:44 to be inserted into the uterus to then remove the pregnancy.
09:25:49 In the first trimester, generally that's performed with a
09:25:52 suction device, a plastic tube that's connected to a suction
09:25:55 source, and removed -- and the pregnancy removed in that
09:26:01 manner.
09:26:03 Q. Let me stop you there and ask you, when you talked about

opening the cervix, is another word for that "dilation"?
A. Yes.
Q. Okay. So I think you've described the surgical procedure in the first trimester. Did you have any more details you wanted to add about that?
A. Yes. In the -- well, in the first trimester, the suction is performed, the pregnancy is removed, the tissue is inspected to assure that the entire pregnancy is removed.
In the second trimester, the dilation of the cervix is achieved sometimes with medications alone. But in other cases, generally more advanced pregnancies, devices are placed inside the cervix and allowed to absorb -- absorb moisture over time and swell and then stretch the cervix open. Those are called osmotic dilators, or laminaria, and they are commonly used in the later second-trimester procedures.
And then -- if I may, then after that dilation of the cervix has been accomplished, the procedure is performed. At the time of the actual procedure, sometimes dilators are used by the surgeon to further open the cervix and then proceed with the evacuation of the uterus using forceps. Also, at the conclusion --
Q. Let me stop you there and go back and get some additional details on the first-trimester procedure that you were describing.
A. Okay.

09:27:49 Q. Are first-trimester surgical procedures typically done on
09:27:54 an outpatient basis?
09:27:56 A. Yes.
09:27:56 Q. And when you begin suction aspiration, is the fetus
09:28:01 typically alive?
09:28:02 A. Yes.
09:28:03 Q. And when you complete a suction aspiration, is the fetus
09:28:09 typically intact?
09:28:10 A. No.
09:28:10 Q. And how in the suction aspiration process do you think
09:28:14 demise occurs?
09:28:16 A. I think at the time of the fetus being removed and when it
09:28:23 is removed and it's not intact, that's when the demise occurs.
09:28:28 Q. And so it's the action of the suction?
09:28:31 A. Yes.
09:28:32 Q. So you started to describe abortions in the second
09:28:39 trimester, and is what you were describing the D&E procedure?
09:28:50 A. Yes.
09:28:50 Q. All right. So I think I may have interrupted you before
09:28:56 you fully finished with your description.
09:28:58 Can you describe the process in a D&E procedure,
09:29:04 after dilation is completed, what the physician does to
09:29:08 complete the procedure.
09:29:08 A. So the evacuation portion of a D&E procedure involves
09:29:14 inserting forceps into the uterine cavity, and then they are

09:29:18 1 used to grasp the pregnancy tissue in the lowest part of the
09:29:27 2 uterus, just above the cervix, and then the pregnancy is
09:29:32 3 removed through the cervix. The amount of dilation that is
09:29:34 4 achieved is not enough such that the fetus comes out intact,
09:29:38 5 and so it is removed in pieces. Once that's completed, then
09:29:44 6 the placenta is also removed with the evacuation forceps.
09:29:52 7 However, sometimes the placenta will come first if it's lowest
09:29:56 8 in the uterine cavity.
09:29:58 9 At the conclusion of the evacuation portion of the
09:30:01 10 procedure, then suction is commonly used to confirm that the
09:30:04 11 uterus is completely empty. All of this is performed under
09:30:10 12 ultrasound guidance, as we call it. So one person is observing
09:30:15 13 the instruments going inside the uterus to confirm that that's
09:30:19 14 being done properly and that the entire pregnancy is removed.
09:30:24 15 Q. So, to be clear, what is the difference between a suction
09:30:31 16 aspiration procedure and a D&E?
09:30:34 17 A. Well, it's really the instruments that you're using. In a
09:30:41 18 suction procedure, it's using a plastic tube that's connected
09:30:46 19 to a suction source. In a D&E we're using instruments that
09:30:51 20 we're inserting through the cervix to grasp the fetus.
09:30:54 21 Q. At what gestational age do physicians typically begin to
09:30:59 22 use forceps?
09:31:01 23 A. Well, that will vary based on the physician's training,
09:31:05 24 experience, and background. In my own personal practice, I
09:31:09 25 generally start performing a D&E procedure at 15 weeks LMP.

09:31:18 Q. And what's the latest gestational age that you can recall
09:31:21 completing an abortion without the use of forceps?
09:31:26 A. For me I generally stop at 15 weeks. I would -- I would
09:31:33 have stopped at 15 weeks LMP.
09:31:35 Q. And what's the average time for the evacuation part of the
09:31:40 procedure?
09:31:41 A. Well, that will vary based on how much dilation of the
09:31:48 cervix there is and will be from a few minutes to perhaps as
09:31:53 long as 20 minutes, depending upon the situation.
09:31:56 Q. And can the D&E procedure be performed on an outpatient
09:32:02 basis?
09:32:02 A. Yes.
09:32:02 Q. And, in the outpatient setting, what type of sedation is
09:32:09 typically used?
09:32:09 A. In the outpatient setting, generally, oral medications to
09:32:13 decrease anxiety and provide some pain relief are provided to
09:32:19 the woman as well as an injection of anesthetic around the
09:32:25 cervix called a paracervical block. So that's the outpatient
09:32:27 setting.
09:32:27 Q. Okay. Go ahead.
09:32:29 A. And let me add, in addition, in some outpatient settings,
09:32:32 there's the capability of providing intravenous medications for
09:32:37 pain management. And, in some settings, even deep sedation.
09:32:44 Q. And have you regularly performed D&E procedures?
09:32:47 A. Yes.

09:32:48 Q. And have you taught D&E procedures to other physicians?
09:32:52 A. Yes.
09:32:52 Q. And have you provided D&E procedures in both inpatient and
09:32:56 outpatient settings?
09:32:57 A. Yes.
09:32:58 Q. Do you consider D&E to be a safe procedure?
09:33:03 A. Very much so.
09:33:04 Q. And how in your experience has the provision of
09:33:12 second-trimester abortion care evolved over time?
09:33:16 A. When I was a resident, it was primarily a medical
09:33:21 management approach. Medicines were administered to cause the
09:33:27 pregnancy to end and the uterus to expel the pregnancy. As
09:33:31 time went by, techniques to provide D&E were developed and
09:33:40 improved such that now the majority of cases are managed with
09:33:44 D&E.
09:33:52 Q. You mentioned a little bit about the dilation process that
09:33:57 happens before evacuation of the uterus. In doing dilation
09:34:04 prior to an abortion, what's your goal as a physician?
09:34:08 A. So my goal in dilation is to get the cervix open enough to
09:34:15 be able to safely perform the abortion procedure.
09:34:18 Q. And is there -- do you try and get the -- as much dilation
09:34:25 as you possibly can?
09:34:28 A. No. That is because, in the D&E setting, there would be a
09:34:35 risk, potentially, of violating the so-called partial-birth
09:34:39 abortion ban. And, thus, we perform dilation with the intent

to perform a standard D&E procedure, as defined in that decision. And that, therefore, is designed to have enough dilation to be able to complete an evacuation procedure, but not go as far as what occurs in a so-called partial-birth abortion.

Q. So you described a couple of different means by which physicians can do dilation in the second trimester, and I believe you described medication and laminaria.

Can you talk a little bit about what medications are used for -- to assist you with dilation.

A. So most commonly we use a medication called misoprostol, and that's administered in several different routes to cause the cervix to soften and to dilate. And after its effect has been appreciated, then at the time of the procedure, which is generally hours or a day later, the cervix is directly dilated with instruments.

Q. And you also mentioned laminaria. At what point in -- at what gestational age is laminaria typically used for dilation?

A. So, again, that's going to vary based on the experience and training of providers. Where I work we generally start using laminaria at about 18 weeks LMP, and those are inserted on one day -- let's say on a Wednesday they're inserted -- then the patient comes back on Thursday to have her procedure.

In some cases of later second-trimester procedures, a second set of laminaria may be inserted. So in that scenario,

09:36:41 1 the first -- as following this example, the first set of
09:36:47 2 laminaria are inserted on a Wednesday, the patient comes back
09:36:50 3 on Thursday, the original laminaria are removed, additional
09:36:53 4 laminaria are inserted, and then the patient comes back on
09:36:57 5 Friday for the D&E procedure.
09:36:59 6 Q. For women who are not having laminaria, but for whom you
09:37:03 7 are doing misoprostol, is that typically administered and the
09:37:09 8 procedure completed in one day?
09:37:11 9 A. Yes. Usually it is a couple of hours of misoprostol
09:37:20 10 effect before the abortion is performed.
09:37:22 11 Q. At the point at which you begin the evacuation of the
09:37:28 12 uterus, if the physician hasn't done a procedure to cause
09:37:35 13 demise before starting to use the forceps, is the fetus
09:37:41 14 typically alive at that point?
09:37:42 15 A. Yes.
09:37:43 16 Q. I'm going to switch now and ask you some questions about
09:37:47 17 medication abortions in the second trimester.
09:37:48 18 A. Okay.
09:37:49 19 Q. And are these also known as inductions?
09:37:51 20 A. Yes.
09:37:51 21 Q. And can you describe that process.
09:37:54 22 A. Medications are administered. Usually we first use a
09:37:59 23 medication called mifepristone that will a cause the cervix to
09:38:06 24 soften and open to a certain extent. And then medications like
09:38:13 25 misoprostol again are used to cause the uterus to contract and

09:38:16 to expel the pregnancy. Those are administered every four
09:38:20 hours, generally, and may take multiple doses to achieve the
09:38:24 delivery of the fetus.
09:38:25 Q. Let me jump back just a second and ask you, when you were
09:38:30 talking earlier about the introduction of D&E procedure as a
09:38:36 means of performing second-trimester abortions, do you have an
09:38:39 opinion as to whether that was an advance in medical care?
09:38:45 A. Yes. I definitely feel that way. D&E is a very, very
09:38:52 safe procedure. And the advantages are that, as you mentioned,
09:38:55 they can be performed in an outpatient setting, so patients
09:39:00 don't have to come to the hospital. The amount of time
09:39:03 involved with a D&E procedure is quite a bit shorter than an
09:39:09 induction procedure. Because it's not in the hospital, the
09:39:13 expenses are quite a bit lower. And the complication rates
09:39:17 with induction procedures can be higher than with D&E.
09:39:22 Q. So, for the induction in the second trimester, what is the
09:39:27 process for the patient?
09:39:29 A. Well, she essentially goes through labor, very similar to
09:39:35 what she would experience if she were at the end of pregnancy
09:39:39 with a normal pregnancy.
09:39:40 Q. And can that be a difficult process?
09:39:42 A. Sure. Painful, long, and we often provide epidural
09:39:48 anesthetic or very significant pain medication to manage. We
09:39:53 treat it like a normal delivery, so are prepared to manage
09:39:56 complications such as bleeding. Additional complications can

09:40:00 1 occur, particularly in the setting of a prior cesarian section,
09:40:03 2 which is very common now in the U.S., and uterine rupture is a
09:40:08 3 risk with the induction procedures.
09:40:10 4 Q. And how long do induction procedures typically take?
09:40:14 5 A. Well, the -- probably the shortest period of time would be
09:40:20 6 four hours after administration of the first dose of
09:40:24 7 misoprostol. But it's not unusual for those inductions to take
09:40:28 8 36 or 48 or sometimes 72 hours.
09:40:31 9 Q. And where do these procedures typically occur?
09:40:39 10 A. We provide those services in labor and delivery. The
09:40:43 11 nurses in labor and delivery are very used to managing patients
09:40:47 12 who are going through labor, and that's usually what we are
09:40:51 13 creating with these medications.
09:40:53 14 Q. And, "labor and delivery," by that you mean in a hospital
09:40:57 15 setting.
09:40:57 16 A. Yes.
09:40:58 17 Q. And you mentioned cost differential. Is there a cost
09:41:06 18 difference between and outpatient D&E and an induction?
09:41:09 19 A. Yes. A very significant difference. I don't know exact
09:41:11 20 numbers, but a very large difference.
09:41:15 21 Q. And which is the more expensive?
09:41:18 22 A. The induction.
09:41:20 23 Q. In the United States, how common are induction abortions
09:41:23 24 in the second trimester?
09:41:25 25 A. Well, in the U.S. it's pretty uncommon. Maybe 5 percent

09:41:29 of second-trimester abortions are provided with medications.
09:41:33 Where I am it's a bit higher, but we're dealing with a
09:41:37 different population.
09:41:39 Q. And comparing the prevalence of D&E versus induction
09:41:43 abortions for second-trimester abortions in the United States,
09:41:45 which is more common?
09:41:47 A. D&Es are much more common.
09:41:50 Q. So starting at approximately 15 weeks and going through
09:41:54 22 weeks LMP, what is the most common method of abortion in the
09:41:59 United States?
09:41:59 A. Dilation and evacuation.
09:42:06 Q. Are you familiar with medical procedures that can be
09:42:10 undertaken prior to the removal of the fetus to cause fetal
09:42:15 demise?
09:42:15 A. Yes.
09:42:15 Q. And what are the names of those procedures?
09:42:21 A. Well, these are generally termed feticidal procedures, to
09:42:25 cause the fetus' fetal cardiac activity to cease. And these
09:42:30 are generally achieved by injecting medications, usually
09:42:34 directly into the fetus, or by transecting the umbilical cord.
09:42:41 Q. So is one of the medications used in the injections you
09:42:45 described digoxin?
09:42:46 A. Yes.
09:42:47 Q. And are you familiar with digoxin as a method of causing
09:42:52 fetal demise?

09:42:53 A. Yes.
09:42:53 Q. And how are you familiar with that?
09:42:55 A. I have provided digoxin injections to cause fetal demise
09:43:02 for many years, so I have personal experience. And I've also
09:43:06 taught that technique to residents and fellows and am familiar
09:43:10 with the literature.
09:43:12 Q. What is digoxin?
09:43:14 A. Digoxin is a medication that is used to manage heart
09:43:19 conditions in adults, and it has the primary effect in the
09:43:26 conduction system of the heart, the electrical system in the
09:43:30 heart. So it -- it makes the heart work more effectively in
09:43:35 settings where it's diseased.
09:43:37 Q. And at what gestational age, in your experience and
09:43:45 understanding of the literature, is digoxin administered to
09:43:48 cause fetal demise?
09:43:49 A. The vast bulk of the literature shows that digoxin is used
09:43:58 starting at 18 weeks LMP.
09:44:04 Q. I'd like to have you describe the process of administering
09:44:07 digoxin starting with the process that the woman undergoes.
09:44:10 Can you describe that?
09:44:11 A. Yes, I can. The patient is told that the injection of the
09:44:17 digoxin really is the beginning of the abortion procedure
09:44:20 because it's designed to cause the demise of the fetus. And,
09:44:25 therefore, the patient has to have a full consent about the
09:44:30 abortion procedure, with a description of what will happen to

her and a discussion of the potential complications and the alternatives.

Once that consent has been obtained, then the digoxin injection is performed by first looking with ultrasound to evaluate the position and -- of the fetus inside the uterus, determining where the amniotic fluid is, where the placenta is. And then one person will be holding an ultrasound transducer, the instrument itself, while another person is actually performing the injection.

The injection is performed using generally a three-inch long spinal needle, it's called, and it is inserted through the skin and then through the muscle of the abdominal wall, then into the uterus. And then it's advanced until -- the way we perform it, into the fetus, all under direct ultrasound visualization.

A syringe is then attached to the needle, and it's aspirated to confirm that there is no blood or amniotic fluid or other fluid. And once that's found, then a separate syringe with the digoxin inside of it is attached to the needle, and then the digoxin is injected into the fetus.

Q. And you described that women have, prior to this procedure, given consent. Does that include consent for the administration of digoxin?

A. Yes.

Q. And do you consider that to be a distinct medical

09:46:24 procedure?
09:46:25 A. Yes.
09:46:25 Q. What you have described is the administration of digoxin
09:46:37 transabdominally. Is there another means by which physicians
09:46:43 might administer digoxin?
09:46:44 A. Yes. I have no personal experience with this, but there
09:46:47 are reports of transvaginal injection of digoxin. That's
09:46:54 performed by visualizing the cervix and upper vagina with a
09:46:59 speculum. Then, after cleaning off the vaginal skin mucosa,
09:47:03 the needle is inserted into the amniotic fluid, also under
09:47:11 ultrasound guidance. At that point the syringe is aspirated to
09:47:17 confirm that the needle tip is in the amniotic fluid and it's
09:47:22 visualized with the ultrasound, and then the digoxin is
09:47:25 injected into the amniotic fluid.
09:47:34 Q. And you've described -- can you describe now more from the
09:47:41 physician's standpoint of you've mentioned trying to inject
09:47:50 into the fetus. Can you tell the Court what you mean by that.
09:47:52 A. We attempt to inject the digoxin into the fetus because my
09:47:57 understanding of the literature is that the success rate of
09:48:01 achieving fetal demise is higher with an intrafetal injection
09:48:06 and, consequently, that's what we attempt.
09:48:09 Q. And what would be the alternative, if not intrafetal?
09:48:16 A. If the fetus could not be directly injected, then an
09:48:18 alternative would be to inject the digoxin into the amniotic
09:48:23 fluid. So once the needle is placed near the fetus, under the

09:48:32 guidance of the person holding the ultrasound transducer, then
09:48:36 the needle is advanced with some significant force to get the
09:48:42 tip of the needle into the -- the body of the fetus to then be
09:48:50 able to inject the digoxin.
09:48:51 Q. And so when you talk about the person doing the
09:48:54 ultrasound, that's a different person than the physician who is
09:48:57 doing the injection; is that correct?
09:48:58 A. Yes. It's a two-person event.
09:49:01 Q. And you mentioned the difference between intrafetal and
09:49:10 intra-amniotic in terms of causing demise. Is there any other
09:49:15 reason why physicians would prefer intrafetal to
09:49:17 intra-amniotic?
09:49:19 A. Well, there's some evidence that intra-amniotic
09:49:24 administration of digoxin can carry a higher risk of infection
09:49:32 or a higher risk of what's termed an extramural delivery of the
09:49:36 fetus.
09:49:38 Q. We'll get back to extramural delivery in just a minute.
09:49:42 Let me ask, why did you first learn to use digoxin?
09:49:51 A. The first experience I had with injecting digoxin was when
09:49:57 patients were requesting that in the setting of an induction
09:50:05 termination of pregnancy.
09:50:06 Q. So an induction, not a D&E?
09:50:09 A. Correct.
09:50:09 Q. And how did you learn to do it?
09:50:13 A. Well, this was a new technique for me. So first I

09:50:20 1 educated myself about the procedure as best I could tell from
09:50:23 2 the literature, refreshed my memory about digoxin as a
09:50:28 3 medication, because I don't use it very commonly in my adult
09:50:35 4 practice, and then I felt that it was important to learn how to
09:50:38 5 do the technique properly.
09:50:41 6 So I'm lucky enough to work with some very talented
09:50:45 7 maternal fetal medicine specialists who perform injections in
09:50:48 8 the fetus from time to time. I asked if I could observe their
09:50:52 9 injection technique, which I did. And after some number -- I
09:51:00 10 don't remember; it's been a long time -- I then asked them to
09:51:04 11 observe me as I performed some of these procedures. And then
09:51:09 12 once I felt and they felt I was ready to perform these on my
09:51:14 13 own, then I went ahead on my own and then started teaching
09:51:17 14 others how to perform this procedure.
09:51:19 15 Q. And before you learned how to do the digoxin injections,
09:51:23 16 had you been trained to perform amniocentesis?
09:51:26 17 A. Yes. As a resident I learned how to do amniocentesis.
09:51:32 18 Q. Would you describe digoxin injections as being similar to
09:51:35 19 amniocentesis?
09:51:37 20 A. No.
09:51:37 21 Q. And why not?
09:51:38 22 A. Well, in the case of an amniocenteses, what's done with
09:51:45 23 that is insertion of the needle into the amniotic fluid and
09:51:48 24 then aspirating the fluid out. With injection of digoxin,
09:51:52 25 there has to be a switch of the syringes. And, when that's

09:51:57 done, there's the potential for the needle moving or coming out
09:52:01 of the place where it ought to be. But once that's
09:52:08 accomplished, then you're injecting the medication.
09:52:11 So the first part of an intra-amniotic injection of
09:52:17 digoxin is similar, in that the needle placement is the same
09:52:20 and aspiration of some fluid to confirm correct location is
09:52:23 performed. But then the additional step of injecting the
09:52:26 digoxin is done.
09:52:27 Q. Do you believe a physician who hasn't performed these
09:52:31 types of injections before would need additional training?
09:52:34 A. Yes.
09:52:35 Q. Do you think that anyone who can do a paracervical
09:52:42 block -- well, let me have you define that term first.
09:52:44 What is a paracervical block?
09:52:47 A. A paracervical block is a local anesthetic technique to
09:52:51 try to decrease the sensation in the cervix during a procedure,
09:52:53 and that is performed by injecting 10 to 20 milliliters of
09:53:03 local anesthetic in the space lateral to the cervix, usually at
09:53:08 about 5 and 7 o'clock relative to the opening of the cervix.
09:53:13 And it's into tissue that is near the cervix. We don't
09:53:20 aspirate to confirm location. We don't use ultrasound to
09:53:25 monitor the location of the needle. It's -- it's a sort of
09:53:31 blind technique, if you will, and it's done by just one person.
09:53:34 Q. So do you think that anyone who could do a paracervical
09:53:40 block can, without further training, do a transvaginal digoxin

injection?
A. No.
Q. Aside from your experience injecting digoxin for patients who requested fetal demise prior to an induction, have you had other experience injecting digoxin?
A. When the so-called partial-birth abortion ban was decided, we had to come up with strategies to not violate that ban. After meeting with the lawyers at OHSU and discussing options among ourselves, in that setting, we decided to make injection of digoxin a routine for patients of 18 weeks LMP and greater. That was a decision made to primarily protect us legally, and we explained to patients that that was our primary motivation.
After approximately 6 months, we became confident that we could perform D&E procedures without violating the ban and without prior feticidal injection of digoxin. The way we were able to do that was to perform D&Es without having the intent of proceeding to a so-called partial-birth abortion.
Q. And when you came to that conclusion, then did the policy requiring digoxin at 18 weeks change?
A. Yes. It -- at OHSU, after approximately 6 months, we no longer required patients to have that.
Q. And why did you stop?
A. Well, the primary reason was, as I explained, I'm concerned about the -- the complications associated with injecting digoxin in terms of risk to the woman. I also feel

like, if there's not a benefit to the patient, then I don't want to proceed with a procedure. I only want to do procedures on patients where they will benefit, not so that I'll be protected legally.

Q. And -- and having done abortions -- D&E procedures preceded by demise with digoxin at 18 weeks, did you think there was a benefit to the patient?

A. No.

Q. Since that policy change, do you ever perform demise procedures using digoxin?

A. Yes. I still do. And sometimes patients request feticidal procedures prior to an induction of labor and prior to D&E procedures. After discussing the risks and benefit of digoxin, if the patient still makes that request, then we will perform that. In addition, I work colleagues who, as a matter of their routine care, they request that pregnancies beyond 22 weeks LMP have feticide performed. And to be a good team player, I go ahead and perform digoxin injections after appropriate consenting of the patient for my partners when patients are beyond 22 weeks LMP.

Q. How long does digoxin take to cause fetal demise?

A. It is really variable. There is a bulk of literature about that. And it can be a short period of time, or there are definitely situations where it doesn't work. So the other end of the spectrum would be infinity.

09:57:48 Q. And, to be clear, with a digoxin injection, demise occurs
09:57:56 by a needle entering the fetus or the amniotic fluid, a drug
09:58:00 being injected, and then fetal death occurs over a period of --
09:58:04 a variable period of time; is that correct?
09:58:06 A. Yes. Or perhaps not occurring at all.
09:58:11 Q. And are you familiar with the literature looking at
09:58:14 digoxin to cause fetal demise?
09:58:15 A. Yes.
09:58:16 Q. Do those studies include information about digoxin failing
09:58:20 to cause demise?
09:58:21 A. Yes.
09:58:21 Q. And what do they show?
09:58:25 A. Again, there's a variety of findings. But my reading of
09:58:31 that literature tells me that approximately 5 to 10 percent of
09:58:35 digoxin injections are not successful at causing fetal demise.
09:58:40 Q. Is that consistent with your own experience?
09:58:42 A. Yes. I have performed injections when I -- where I know
09:58:47 it was an intrafetal injection, and the next day the fetus is
09:58:52 still alive.
09:58:53 Q. And you mentioned this briefly, but in terms of failure
09:58:57 rate, based on your experience and your review of the studies,
09:59:02 is it the same for intra-amniotic and intrafetal injections?
09:59:07 A. My understanding of the literature is that there's a
09:59:09 higher success rate with intrafetal injection compared to
09:59:14 intra-amniotic.

09:59:16 Q. And, in your experience, if you have done a digoxin
09:59:19 injection and the patient has -- when the patient returns the
09:59:22 next day -- well, I should ask you: When you do the digoxin
09:59:25 injection, what is your practice about when you then complete
09:59:30 the procedure?
09:59:31 A. In order to allow time for feticide to occur, we generally
09:59:39 perform the D&E 24 hours later.
09:59:45 Q. And in situations when the digoxin has not caused demise
09:59:49 when the patient returned the next day, what have you done?
09:59:54 A. Well, we discuss that situation with the patient. In
09:59:58 order to achieve fetal demise, in that situation, we would have
10:00:03 some options. But -- and those would include the other
10:00:09 techniques that we will or have talked about, including
10:00:14 injection of another medication called potassium chloride.
10:00:19 That's not something I do, but I could refer a patient for
10:00:21 that. We could theoretically offer an umbilical cord
10:00:26 transection. But, again, I don't have experience with
10:00:31 purposefully providing that procedure. So I would be -- I
10:00:35 would be kind of stuck.
10:00:37 Q. Well, if you weren't required by law to ensure fetal
10:00:43 demise before you completed the D&E procedure, if that wasn't a
10:00:46 concern, what would you do -- what have you done?
10:00:49 A. Well, I've generally discussed the risk of a second
10:00:54 injection of digoxin, which is not well studied, with a
10:00:58 patient. I sometimes have gone ahead with the D&E procedure

10:01:04 because there wasn't a safe and reasonable way of achieving
10:01:07 fetal demise.
10:01:08 Q. And for the alternatives that you've mentioned -- and
10:01:14 we'll get into some of the details about what those procedures
10:01:17 are in a minute. But, for those procedures, would undertaking
10:01:27 KCl, for example -- would that cause delay for the patient?
10:01:29 A. Definitely in my case because I'm not trained to do that,
10:01:33 and it would require referral to another facility or another --
10:01:37 and definitely another provider. So, yes, there would be
10:01:41 significant delay.
10:01:42 Q. And would you have concerns about that delay in terms of
10:01:45 patient safety?
10:01:47 A. Yes. We've injected a medication into the amniotic fluid
10:01:54 or fetus, so there would be a risk of infection. It's possible
10:01:57 that the patient could go into labor on her own, which
10:02:00 sometimes happens after injection of digoxin, so there are
10:02:05 definitely potential outcomes that would be a problem.
10:02:10 Q. And would that -- would those be the same if you were to
10:02:14 attempt a second injection of digoxin?
10:02:16 A. Yes.
10:02:17 Q. And have you ever tried that?
10:02:18 A. No.
10:02:19 Q. What are the risks associated with a digoxin injection
10:02:27 itself?
10:02:27 A. Anytime a needle is inserted through the skin into the

uterus or any part of the body, there's a risk of infection. So that's real. And, in this particular setting, an infection in the pregnancy tissue could lead to an infection in the uterus and, in extreme cases, require a hysterectomy or, at the very least, antibiotics to manage.

As I mentioned, patients will sometimes go into labor after injection of digoxin, much more often than if they don't have digoxin injections, in my opinion. And, as a consequence, that can create some very difficult situations, some of which I've had to manage personally. And those include patients going into labor very rapidly and delivering the fetus outside of the hospital, perhaps in a hotel room or in her own room at home.

Sometimes patients have come into hospitals and, if the fetus is at a gestational age close to viability and if the fetus is still alive because the digoxin had not worked, then there can be attempts to resuscitate a periviable fetus. So all of those situations can occur, and I've had some experience with those.

Q. And when you talk about resuscitation attempts of a periviable fetus, can you explain what you mean by that.

A. So, generally, viability is defined as ability for the fetus to survive outside of the uterus or even with -- with all the medical assistant that could be provided, and usually that's considered around 24 weeks LMP.

10:04:21 1 We do manage patients who are close to that
10:04:24 2 gestational age at OHSU, and there have been patients where
10:04:30 3 they've gone into labor at, say, 23 weeks LMP. They go into a
10:04:38 4 hospital, the patient delivers this fetus, and, in my opinion,
10:04:42 5 quite understandably, the team in the emergency department at
10:04:46 6 the nearby hospital attempts to resuscitate this fetus. That
10:04:51 7 can be an extremely distressing experience for the woman
10:04:56 8 primarily, but also for the -- the entire health care team.
10:05:01 9 Q. And is there any concern about accidental absorption of
10:05:14 10 digoxin into the woman's system?
10:05:17 11 A. Yes. There are reports of changes in the EKG, the
10:05:23 12 electrocardiograph, of the heart of the woman after she's
10:05:27 13 received digoxin injections.
10:05:29 14 Q. And would that be -- would you have any particular
10:05:33 15 concerns for particular women about digoxin?
10:05:38 16 A. Yeah. We would be very concerned about using digoxin in
10:05:42 17 the setting of a woman having significant cardiac disease.
10:05:47 18 Q. And there any side effects associated with the digoxin
10:05:51 19 injection?
10:05:52 20 A. Well, there's pain. That's just from injecting or, sorry,
10:05:59 21 advancing a needle through the abdominal wall and into the
10:06:03 22 uterus. Sometimes that can be quite severe. I've also noticed
10:06:07 23 pretty significant pain with the actual injection of the
10:06:10 24 medication. And -- and there are reports that -- that indicate
10:06:16 25 a significant increase in vomiting associated with use of

10:06:19 digoxin.
10:06:21 Q. For women who are -- you described dilation processes and
10:06:28 processes by which women can have the dilation and procedure on
10:06:35 the same day. For those women, do you have any concerns about
10:06:39 the impact of requiring digoxin?
10:06:45 A. In our setting we're able administer medication to soften
10:06:49 the cervix and then, three hours later, move right on to a
10:06:53 dilation and evacuation procedure. If I were required to
10:06:58 achieve feticide prior to performing the D&E, then there would
10:07:04 have to be delay. In our setting that would be 24 hours.
10:07:08 Q. And do you think that that has -- would have an impact on
10:07:13 patients?
10:07:13 A. Sure. It would be, you know, disruptive to their lives.
10:07:17 There would be potential complications as we --
10:07:20 MR. MCCARTY: Objection, Your Honor. He is not
10:07:21 qualified to talk about the psychological effects upon a
10:07:26 patient. He's qualified to talk about abortion and second-term
10:07:31 or second-trimester abortion.
10:07:33 THE COURT: Ms. Crepps?
10:07:34 MS. CREPPS: Well, Your Honor, I think it's difficult
10:07:38 to divorce the provision of abortion services from the patients
10:07:42 who are receiving those services, and he was talking about what
10:07:46 he as a physician would have to take into account if he were
10:07:53 requiring patients to have that injection of digoxin.
10:07:55 THE COURT: But that's not the objection. The

objection is his qualification to testify about the psychological aspects.

MS. CREPPS: Well, Your Honor, I think that as a physician providing abortion care, he has observed his patients and their reactions to procedures, so I --

THE COURT: He may testify as a physician as to his personal observations.

MR. MCCARTY: And, Your Honor, I'll make a similar objection. It calls for speculation. Dr. Nichols began his answer with "I think that it could."

THE COURT: Sustained on that. He can't speculate. But he may testify as to his personal observations as to psychological ramifications.

MS. CREPPS: Thank you, Your Honor.

Q. Based on your knowledge and experience, do you believe that causing demise before evacuating the uterus offers medical benefits to women?

A. No.

Q. And why not?

A. Well, as I mentioned, there are side effects and potential complications, as we have discussed. And there doesn't appear to be any benefit in terms of making the evacuation procedure itself safer or faster or less complicated after achieving demise.

Q. Do you understand that some physicians prefer to cause

10:09:32 fetal demise because they believe that it makes the procedure
10:09:39 easier?
10:09:40 A. Yes.
10:09:40 Q. And how do you reconcile that with your own experience?
10:09:45 A. Well, my own experience has not informed me that way.
10:09:51 I've certainly taken care of patients where the fetus is alive
10:09:56 and where the fetus is not, and I have not noticed any
10:09:58 difference in terms of the procedure itself.
10:10:01 In addition -- in addition, the literature does not
10:10:05 support that. There is one randomized trial that evaluates the
10:10:13 safety of D&E with digoxin or with saline injection into the
10:10:19 amniotic fluid, and that study showed no difference in terms of
10:10:25 outcomes. Physicians were asked to determine whether or not
10:10:30 they could tell if a -- the fetus had been demised prior to the
10:10:35 procedure, and they were not able to consistently detect that.
10:10:39 So there doesn't seem to be a noticeable difference
10:10:43 in the hands of the surgeons, nor is there evidence that
10:10:47 there's any health benefit to the patient causing demise prior
10:10:50 to D&E.
10:10:52 Q. And -- and what is your feeling about the fact that some
10:10:58 physicians do demise because they do think it is safer -- makes
10:11:04 the procedure easier?
10:11:06 A. I respect physicians' opinions about what they believe is
10:11:12 the best, and they will come up with their own conclusions
10:11:17 based on their own experiences. So they're certainly entitled

10:11:20 to their opinions. I just don't believe the medical literature
10:11:24 reflects that when carefully -- carefully done studies have
10:11:27 been performed, and that's not been my experience either.
10:11:32 Q. Going back to intrafetal versus intra-amniotic injections,
10:11:38 would you say that one is more technically difficult than the
10:11:43 other?
10:11:43 A. Yes. Intrafetal is more technically difficult because it
10:11:47 requires a precise location of the needle as it's advanced into
10:11:54 the fetus. And that requires skill on the part of the person
10:12:00 holding the ultrasound device, to monitor the location of the
10:12:05 needle and a precise direction of insertion of the needle. You
10:12:12 know, up and down, right and left, the depth, all that has to
10:12:16 be just right to achieve an intrafetal injection.
10:12:20 Q. And, again, though, is it your opinion that intra-amniotic
10:12:24 injections are not -- have higher rates of failure to cause
10:12:27 demise?
10:12:28 A. Yes. That's my interpretation of the literature.
10:12:33 Q. Are you aware of any physicians who use digoxin prior to
10:12:39 18.0 weeks LMP?
10:12:42 A. No.
10:12:43 Q. Are your aware of any studies reporting on the use of
10:12:46 digoxin before 18 weeks?
10:12:48 A. There's one study with some reports under 18 weeks, but
10:12:52 that's the only one that I know of.
10:12:56 Q. And do you have an opinion about whether that study

10:13:00 establishes the safety and efficacy of digoxin below 18 weeks?
10:13:07 A. That study looked -- attempted to find the effective dose
10:13:14 of digoxin to cause fetal demise, and they reported a series
10:13:20 that included patients down to 17 weeks LMP. So their goal in
10:13:27 that study was to look at effectiveness.
10:13:30 Q. As a physician, would you assume that digoxin is safe and
10:13:34 effective prior to 18 weeks based on the research that's
10:13:38 available?
10:13:40 A. In my opinion, it's uncharted territory. There really
10:13:44 isn't good literature available to look at digoxin feticide in
10:13:50 this particular setting, under 18 weeks.
10:13:52 Q. And you mentioned that, if a patient returned after a
10:13:59 digoxin injection and demise hadn't occurred, that you could
10:14:04 consider a second injection of digoxin?
10:14:07 A. Yes.
10:14:07 Q. And have you ever done that?
10:14:09 A. No.
10:14:09 Q. And would you consider it to be appropriate to do that if
10:14:18 there are were no law requiring you to ensure demise?
10:14:21 A. Well, if there were no law -- and there isn't in Oregon --
10:14:24 so, no, I would not feel compelled to do that.
10:14:27 Q. And what would be -- would you have any concerns about
10:14:31 doing a second injection of digoxin?
10:14:35 A. Yes. There are, as I mentioned, reports of side effects
10:14:38 and complications associated with digoxin injections. So

10:14:41 administering a second dose 24 hours later to a patient, in my
10:14:46 mind, carries some additional risks.
10:14:49 Q. And are you aware of any literature -- any medical
10:14:53 literature addressing second injections of digoxin after a
10:14:57 first injection has failed?
10:15:02 A. No.
10:15:03 Q. And if you were doing a second injection -- I understand
10:15:11 you haven't -- what time would you expect you would need to
10:15:19 have elapsed between the second injection and when you would
10:15:22 attempt to remove the fetus in order to ensure demise?
10:15:29 A. In our setting we would wait an additional 24 hours.
10:15:33 Q. Do you think, if you were faced with a bill like SB 8,
10:15:45 that you would be able to cause demise using digoxin in every
10:15:49 case?
10:15:50 A. No.
10:15:52 Q. And why is that?
10:15:54 A. Well, based on my own personal experience where I've not
10:15:58 always had success in achieving fetal demise with digoxin, I
10:16:06 would be very nervous about violating the law if that were --
10:16:10 if that were the law where I practiced. And the medical
10:16:14 literature reflects that as well.
10:16:16 Q. Going back to being able to do digoxin in every instance,
10:16:20 are there technical difficulties with performing an injection
10:16:24 of digoxin for certain patients?
10:16:26 A. Sure.

10:16:27 Q. Can you describe those?
10:16:29 A. With the obesity epidemic in this country, it is becoming
10:16:38 in some cases more difficult to inject into the fetus. It
10:16:44 requires longer needles, which we do -- do use to achieve that.
10:16:50 In addition, there can be some anatomic issues that can make it
10:16:54 difficult to reach the fetus. For example, large fibroids in
10:17:00 the anterior part of the uterus can get between the skin and
10:17:04 the fetus, so an even greater distance can be present.
10:17:11 Q. All right. In addition to the fact that you may not be
10:17:16 able to cause demise in every case, would you have any other
10:17:25 concerns if you were required to induce demise for all patients
10:17:33 beginning when you start to use D&E procedures, which would be
10:17:39 beginning at 15 weeks?
10:17:40 A. Well, less than 18 weeks LMP for me would be new
10:17:45 territory. And, knowing the anatomy of fetuses and uteruses at
10:17:52 that -- at those younger gestational ages, I believe that it
10:17:58 would be more difficult to achieve an intrafetal injection of
10:18:03 digoxin. That's because the amount of fluid compared to the
10:18:07 size of the fetus is different. There's more fluid in early
10:18:12 pregnancy, and so achieving an injection into the fetus would,
10:18:16 in my opinion, be technically more difficult.
10:18:19 Q. And as to the safety and efficacy of digoxin injections
10:18:23 prior to 18 weeks?
10:18:25 A. Again, there's no literature, so I don't really have much
10:18:29 to draw on aside from the one study that talked about 17 weeks

and under.
Q. Moving on, then, are you familiar with a method of causing fetal demise using potassium chloride?
A. Yes.
Q. And is that also known as KCl?
A. Yes.
Q. And how is KCl typically used or administered in medicine outside the context of fetal demise?
A. So KCl is an electrolyte that is present in our bodies, and in some medical conditions the amount of potassium is low or high. But in the case of a low potassium level, then KCl is administered intravenously to correct that problem.
Q. Have you ever personally used KCl to cause fetal demise?
A. No.
Q. And why not?
A. I don't have the training or experience or skill to be able to provide that service.
Q. If you have the training and skill to do digoxin injections, why wouldn't that make you able to do KCl injections?
A. KCl is administered into the heart of the fetus, and that target is quite a bit smaller than the goal of just achieving an intrafetal injection. In the case of digoxin, essentially, any significant part of the fetus can be injected and achieve or hope to achieve fetal demise. With KCl, in particular, the

goal is always to inject directly into the fetal heart. That requires much more skill than I have in terms of getting the needle into the right place. It also requires a very skilled ultrasound technician to direct the needle into the right location. And, in addition, it requires high-quality ultrasound equipment to be able to provide that service, and I don't have access to any of that.

Q. And have you ever observed another physician doing a KCl injection to cause demise?

A. Yes.

Q. And what physicians would that be?

A. Those are my maternal fetal medicine colleagues that I mentioned earlier who taught me how to do digoxin injections.

Q. And do they have specialized training?

A. Yes.

Q. And in terms of the patient experience with KCl, can you describe that?

A. Well, the experience with KCl is similar to digoxin to the extent that the needle is advanced through the abdominal wall, muscle, uterus, and into the fetus under direct ultrasound visualization. The experience for the fetus, though, is a little bit different, to the extent that the goal and result most of the time is immediate cessation of cardiac activity. The fetus dies exactly at that moment. And my observation from directly observing patients going through that experience has

10:21:55 been that it has been very distressing for them.
10:21:57 Q. And so when you say that the injection into the fetus
10:22:04 causes demise immediately, that is if the physician obtains
10:22:11 intracardiac, in other words, pierces the heart of the fetus
10:22:14 with a needle?
10:22:15 A. Yes. There are reports of intracardiac injection of KCl
10:22:21 not being successful. But for this discussion's sake, that's
10:22:26 what's -- that's the goal, is immediate cardiac activity
10:22:31 cessation.
10:22:31 Q. And so you're aware of, as with digoxin, that KCl can fail
10:22:37 to cause demise?
10:22:38 A. Yes.
10:22:39 Q. And are you aware of any physicians who are not maternal
10:22:47 fetal medicine specialists administering KCl injections?
10:22:52 A. No.
10:22:52 Q. And in what type of medical setting is -- are KCls
10:23:02 typically performed?
10:23:03 A. KCl injections are, as I mentioned, in settings where
10:23:07 there are very high-quality ultrasound devices and skilled
10:23:11 ultrasound technicians. So, typically, that's in hospitals or
10:23:16 hospital-affiliated clinics.
10:23:18 Q. Are you aware of any abortion providers using KCl in an
10:23:25 outpatient setting?
10:23:26 A. No.
10:23:28 Q. And why do you think it's not being used in an outpatient

10:23:31 setting?
10:23:31 A. Well, as I mentioned, the requirement of highly skilled
10:23:36 technicians, high-quality ultrasound devices, and the skill of
10:23:41 the person performing the injection, none of that exists in the
10:23:44 outpatient, usual abortion setting.
10:23:51 Q. And are your aware of reports of KCl being injected by
10:23:56 other routes other than intracardiac?
10:23:58 A. Yes. There have been some reports of injection of KCl
10:24:02 into the fetal head.
10:24:05 Q. And do you have any concerns about that method of -- of
10:24:11 injecting KCl?
10:24:13 A. Well, to be perfectly honest, I had been unaware of that
10:24:17 literature until I started preparing for this testimony. And
10:24:23 so there is some literature, but it is -- it's limited.
10:24:29 Q. And any other means besides intracranial?
10:24:33 A. There are reports of intrathoracic injection of KCl, but
10:24:43 the goal always is a direct intracardiac injection. That's how
10:24:47 it's described. That's how the procedures are initially
10:24:51 intended to be performed. I believe in some cases the effort
10:24:58 or attempt to get the needle directly into the fetal heart is
10:25:02 unsuccessful, so the needle is in the chest of the fetus and
10:25:06 the injection is done with hopes that it would achieve demise.
10:25:09 Q. What are the risks of using KCl for demise?
10:25:13 A. Well, KCl is a medication that can cause cardiac arrest,
10:25:18 as we've discussed in this case, of a fetus. And, in fact,

there is, again, a case reported of a woman who was undergoing a KCl injection to achieve fetal demise who had a cardiac arrest.

Q. And are there any other risks associated with the KCl injection itself?

A. Separate from causing demise, not really.

Q. Would -- would there be a risk of infection, for example, that you --

MR. MCCARTY: Objection, Your Honor. Leading.

THE COURT: Sustained.

Q. (BY MS. CREPPS) All right. Are there any other risks that you can think of associated with KCl?

A. As I mentioned before --

MR. MCCARTY: Objection, Your Honor. Asked and answered.

THE COURT: Overruled.

A. As I mentioned, getting the KCl into the fetal heart requires inserting a needle through the abdominal wall into the uterus. So, just like in the case of digoxin, there would be risks associated with infection.

Q. Do you think if you were in a practice setting in which you were required in an outpatient setting to cause demise using KCl in every instance, that you would be able to do that?

A. No.

MS. CREPPS: Your Honor, I have more than a minute

10:26:53 left, but probably about 20 minutes. So if you'd like to take
10:26:57 a break at this point, I'm getting ready to start a new topic.
10:27:01 Or we could keep going.
10:27:05 THE COURT: It's not quite 10:30, but this is
10:27:07 probably a good stopping point. At this time the court will
10:27:10 take its morning recess, and we will be in recess until 10:45.
10:27:17 We'll take a 15-minute recess.
10:27:19 (Recess)
10:48:36 (Open court)
10:48:36 THE COURT: Ms. Crepps, you may continue your direct
10:48:38 examination of the witness.
10:48:39 MS. CREPPS: Thank you.
10:48:40 Q. Dr. Nichols, before the break we were talking about using
10:48:45 KCl to cause fetal demise. Just two more questions on that.
10:48:48 Would it be technically difficult to do KCl injections for
10:48:54 certain patients?
10:48:55 A. Yes. As I testified earlier in regard to digoxin
10:48:59 injections, there could be challenges with getting the needle
10:49:03 advanced into the heart of the fetus and, in -- and, in fact,
10:49:07 more difficult. So the same concerns around obesity and the --
10:49:12 the depth of injection that would be required and the possible
10:49:16 effect of fibroids getting in the way would apply with KCl.
10:49:22 Q. And do you believe there are any medical benefits to
10:49:25 causing demise with KCl?
10:49:27 A. No.

10:49:28 Q. Another method of demise that you mentioned earlier on was
10:49:36 umbilical cord transection.
10:49:38 A. Yes.
10:49:38 Q. What is umbilical cord transection?
10:49:43 A. In this context, that is a procedure where the umbilical
10:49:46 cord is first brought down through the cervix at the beginning
10:49:50 of the evacuation portion of the procedure. It is then
10:49:55 divided, and the fetal blood is allowed to drain out to cause
10:49:59 fetal demise.
10:50:00 Q. And so at what point in the D&E process that you've
10:50:07 described, dilation and then evacuation, at what point in the
10:50:11 process can umbilical cord transection be done?
10:50:15 A. Well, it can occur very early and sometimes just
10:50:22 coincidentally. But it -- in the way that I perform D&E
10:50:26 procedures, oftentimes the umbilical cord isn't encountered
10:50:34 until quite a bit later in the procedure.
10:50:36 Q. If your doing a D&E procedure and the cord presents -- I
10:50:41 don't remember what word you used.
10:50:43 A. Prolapses through the cervix is something that does occur
10:50:47 when I start an -- I'm sorry -- when I start a D&E procedure.
10:50:53 But I have no experience with purposefully going in and getting
10:50:57 it, primarily.
10:50:59 Q. So it doesn't always prolapse --
10:51:01 A. No.
10:51:01 Q. -- through the cervix?

10:51:04 When it does, do you divide or cut the cord and wait
10:51:07 for demise?
10:51:08 A. No.
10:51:08 Q. And why not?
10:51:10 A. Because it increases the length of time of the procedure,
10:51:15 and there's no benefit. And, in addition, there could be
10:51:21 concerns around increasing the time of the procedure. For
10:51:25 example, if the patient is having bleeding from the uterus,
10:51:29 there's the exposure to the anesthetic agents that's going to
10:51:34 be longer -- all of those carry some risk.
10:51:36 Q. And if you were attempting umbilical cord transection in
10:51:42 the case in which the cord did not present itself, how would
10:51:46 you go about doing that?
10:51:49 MR. MCCARTY: Objection, Your Honor. Lacks
10:51:50 foundation.
10:51:52 THE COURT: Well, explain that objection a little
10:51:54 more to me.
10:51:55 MR. MCCARTY: Yes, Your Honor. He's not testified
10:51:57 that he's ever performed a UCT deliberately on a fetus and has
10:52:01 no experience doing so.
10:52:03 THE COURT: Well, that may become apparent from his
10:52:06 answer. So the objection is overruled. You may answer the
10:52:08 question.
10:52:09 A. Could you restate?
10:52:13 Q. Yes. If you were attempting umbilical cord transection in

10:52:18 a case in which the cord did not present itself at the cervix
10:52:21 at the beginning of the procedure, how would you do that?
10:52:24 MR. MCCARTY: Same objection.
10:52:25 THE COURT: All right. Lay a predicate for his
10:52:33 background.
10:52:34 MS. CREPPS: Yes, Your Honor.
10:52:36 Q. So, Doctor, you have not intentionally sought to grasp the
10:52:39 umbilical cord; is that correct?
10:52:42 A. Correct.
10:52:42 Q. Based on your experience providing D&E procedures, do you
10:52:47 think it would be possible to do so in situations in which the
10:52:54 umbilical cord has not presented itself?
10:52:57 MR. MCCARTY: Objection, Your Honor. Lacks
10:52:58 foundation.
10:52:59 THE COURT: Sustained.
10:53:03 Q. (BY MS. CREPPS) Doctor, have you read any studies related
10:53:06 to umbilical cord transection?
10:53:09 A. Yes.
10:53:09 Q. And what was that study? Can you describe it?
10:53:13 A. It was a case series out of Colorado that described a
10:53:20 clinic that provided that particular approach to achieving
10:53:24 fetal demise, and it was a series of patients that they
10:53:30 described. The primary purpose of that study was to determine
10:53:35 the length of time that it took from -- between umbilical
10:53:42 transection and cessation of cardiac activity. It was a

10:53:47 retrospective study which makes me somewhat cautious about it;
10:53:53 but, still, that's what is available in the literature.
10:53:57 Q. And do you believe that that study establishes the safety
10:54:01 and efficacy of doing umbilical cord transection in every case?
10:54:07 A. No. I don't think it does. It is an interesting report
10:54:10 by one clinic, but it would be not generalizable to the entire
10:54:19 D&E providing community.
10:54:21 Q. If you -- if in a case where the umbilical cord did not
10:54:33 present itself, do you believe you would be able to grasp the
10:54:39 cord?
10:54:40 MR. MCCARTY: Objection, Your Honor. Lacks
10:54:41 foundation.
10:54:42 THE COURT: Sustained.
10:54:45 MS. CREPPS: Your Honor, may I argue the --
10:54:47 THE COURT: Well, he has testified on a basis of a
10:54:52 study that he has reviewed, and he is capable and qualified to
10:54:55 testify on the basis of that. But that appears to be his total
10:55:01 information and background in this particular area that you're
10:55:05 questioning him about.
10:55:07 So now make whatever other statement you want to make
10:55:10 in that regard to me, but it doesn't seem like he has
10:55:15 experience in this area and has information beyond what was
10:55:18 contained in the literature that he read.
10:55:21 MS. CREPPS: Your Honor, he has experience removing
10:55:24 the fetus from the -- from the uterus and using forceps to do

10:55:31 that. And, in that process, he would necessarily be familiar
10:55:35 with where the umbilical cord is if it doesn't prolapse.
10:55:40 THE COURT: I don't know whether he would necessarily
10:55:41 be familiar with it or not. You're going to have to lay a
10:55:46 bigger predicate before I'm going to let him get into the
10:55:49 details about this procedure.
10:55:51 MS. CREPPS: All right. I'll give it another try.
10:55:53 THE COURT: All right.
10:55:53 Q. (BY MS. CREPPS) Dr. Nichols, when you performed D&E
10:55:57 procedures, is the -- do you visualize the umbilical cord at
10:56:06 some point in every procedure?
10:56:07 A. Yes.
10:56:08 Q. And can you describe at what different points in the
10:56:11 procedure you might visualize the umbilical cord?
10:56:15 A. As I mentioned, sometimes it comes down at the beginning
10:56:19 of the procedure. Oftentimes it comes down to the cervix later
10:56:26 in the procedure as the evacuation is proceeding. And we
10:56:33 always look very carefully at the pregnancy when it is out of
10:56:37 the uterus to confirm that the entire pregnancy has been
10:56:42 removed.
10:56:43 The other important aspect of this is that the
10:56:47 procedure is performed under ultrasound guidance, so I'm
10:56:52 looking at the screen while I'm doing the procedure to direct
10:56:57 the forceps in the correct location. In that process, as I
10:57:04 mentioned at the beginning when I described the procedure, I

10:57:08 remove the lowest portion of the pregnancy in the uterus. And
10:57:14 so I haven't purposefully tried to grasp the umbilical cord,
10:57:21 but I certainly have concerns that it would be difficult to
10:57:26 always get the umbilical cord.
10:57:30 Q. Let me stop you there.
10:57:30 MR. MCCARTY: Objection, Your Honor. Move to strike
10:57:32 that testimony.
10:57:33 THE COURT: She stopped him right there.
10:57:34 Q. (BY MS. CREPPS) Let me ask you, in the situations where
10:57:38 the umbilical cord has not come through the cervix at the
10:57:42 beginning of the procedure, why do you think, in your
10:57:45 experience, that has not happened? Why does it happen
10:57:48 sometimes and not in other times?
10:57:50 MR. MCCARTY: Objection. Leading, Your Honor.
10:57:59 THE COURT: You may proceed. The objection is
10:57:59 overruled.
10:57:59 A. In order to perform D&E procedures as safely as possible,
10:58:03 I, as I mentioned, insert the instruments just up inside the
10:58:12 uterus through the cervix and grasp what is there. And most of
10:58:14 the time it's a portion of the fetus or placenta; on occasion,
10:58:19 it's the umbilical cord.
10:58:33 Q. And if the umbilical cord does not present at the
10:58:37 beginning, it is your testimony that you typically then remove
10:58:41 other parts of the pregnancy before it would -- you would
10:58:55 visualize it?

10:58:56 A. Yes.
10:58:56 Q. And you were discussing your use of ultrasound to
10:59:10 visualize during the abortion procedure. Does that change
10:59:13 based on your ability to visualize what's in the uterus? Does
10:59:18 that change whether or not you have drained the amniotic fluid?
10:59:25 A. At the beginning of the procedure, when we first grasp and
10:59:29 remove material through the cervix, the amniotic fluid -- or
10:59:36 the bag of water is broken and the amniotic fluid comes out.
10:59:40 That's almost always the beginning of the procedure. And with
10:59:47 that sometimes the umbilical cord comes down, but certainly not
10:59:51 always.
10:59:51 Q. And, if it doesn't come down, is your ability to see the
10:59:57 umbilical cord using ultrasound affected by the fact that the
11:00:00 amniotic fluid has been drained out?
11:00:03 A. Not only the umbilical cord, but all the fetal tissue is
11:00:08 difficult to see when there is not amniotic fluid around it.
11:00:11 So, yes, it would be difficult do visualize the umbilical cord
11:00:16 when the bag of water has been broken.
11:00:19 Q. And you testified that you attempt to bring out whatever
11:00:28 part of the fetus is closest to the -- lowest in the uterus, I
11:00:33 think was your terms. Would it impose any risk or -- for you
11:00:40 to try to get the tissue that is not closest to the cervix?
11:00:46 A. Yes. Every time an instrument is inserted through the
11:00:49 cervix, there is potential risk. One is infection. Despite
11:00:54 our attempts to make the procedure as clean as possible, every

insertion of an instrument through the cervix increases the risk of infection later for the woman.

In addition, one of the complications we fear most in D&E procedures is something called uterine perforation. This is where an instrument goes through the uterine wall. It can be a suction procedure. It could be the forceps I described. And, with every additional insertion of an instrument of any kind through the cervix, there is a risk of perforation. So the more insertions, the greater the risk of perforation. And so that's my concern about reaching up high to get some -- something that's difficult to reach.

Q. And so if you were -- if you were attempting to grasp the cord and it was not the closest thing to the cervix, would you be changing your current practice?

A. Yes.

Q. And do you think that that change in practice would change the risks associated with the procedure?

A. Well, yes. As I mentioned, every insertion of instruments increases the risk of infection and perforation. And, in addition, as I described, we introduce the instruments the shortest distance possible inside the uterus and grasp what is there so that the instruments don't go way up inside the uterus. And the farther the instrument is inserted, the greater the risk of perforation.

Q. For umbilical cord transection procedures, what is your

understanding of how long it would take fetal demise to occur after the cord is transected?

MR. MCCARTY: Objection, Your Honor. Lacks foundation.

THE COURT: Please lay a foundation as to where his knowledge comes from.

Q. (BY MS. CREPPS) The study that we discussed earlier that you reviewed, did those authors report an amount of time that it took between the time that umbilical transection was done and when fetal demise was observed?

A. Yes. That was the primary focus of that study, and it demonstrated or it reported the period of time from umbilical cord transection to cessation of cardiac activity anywhere from a few seconds to as long as 11 minutes. The average was about 3 minutes.

Q. In your experience providing D&Es, would you have concerns about adding a delay of up to 11 minutes to wait for fetal demise?

A. Yes. As I mentioned before, there could be complications such as bleeding that would continue for those potentially 11 minutes from the woman. And, in addition, there's the exposure to the anesthetic agent that would be quite a bit longer.

Q. And you've testified that you have not intentionally tried to grasp the cord if it was not present at the cervix. If you

11:04:17 wanted to start doing that in your own practice for the purpose
11:04:22 of causing fetal demise -- purposefully causing fetal demise,
11:04:27 do you think you would need additional training?
11:04:36 A. Would I need additional training to be able to perform
11:04:39 umbilical transection to cause fetal demise?
11:04:42 Q. Yes.
11:04:42 A. Is that what you're asking?
11:04:44 Q. Yes.
11:04:45 A. Well, I'm not sure I would need additional training
11:04:48 because I do complicated D&E procedures a lot. What I would
11:04:52 need would be a person holding an ultrasound transducer that
11:05:01 would have a lot of skill and certainly a higher quality
11:05:04 ultrasound machine than I have access to in the settings that I
11:05:08 work in.
11:05:10 Q. And do you have an opinion as to whether there are medical
11:05:13 benefits of umbilical transection?
11:05:15 A. I don't believe there's any benefit.
11:05:19 Q. We've talked about some different methods of demise and,
11:05:42 in your opinion, do any of these methods confer medical
11:05:46 benefits to women seeking abortions?
11:05:48 A. No.
11:05:48 Q. Is there medical literature that supports your opinion?
11:05:51 A. Yes.
11:05:52 Q. And can you describe any of that literature for the Court?
11:06:01 A. Well, in terms of not providing benefit, the study that we

11:06:07 mentioned earlier that was authored by Rebecca Jackson from the
11:06:11 University of California in San Francisco looked in a
11:06:15 randomized fashion in two populations, one receiving saline,
11:06:19 the other receives digoxin injection. There was no difference
11:06:23 in terms of the two populations; and, thus, the conclusion of
11:06:30 those authors and my interpretation of that paper is that there
11:06:38 is no benefit.
11:06:39 Q. And did that study report a failure rate for digoxin?
11:06:42 A. Yes. It was 8 percent, as I recall.
11:06:45 Q. I'd like to have you turn to Exhibit 18 in the binder,
11:06:53 please.
11:06:59 A. Okay.
11:06:59 Q. And read the title of this document.
11:07:01 THE COURT: Pardon me. What exhibit are you
11:07:03 referring him to?
11:07:03 MS. CREPPS: Eighteen.
11:07:04 THE COURT: Eighteen?
11:07:05 MS. CREPPS: Yes. Plaintiffs' 18.
11:07:12 A. This is a practice bulletin from the American College of
11:07:18 Obstetricians and Gynecologists entitled "Second-Trimester
11:07:19 Abortion."
11:07:20 Q. Are you a member or a fellow of ACOG?
11:07:23 A. Both.
11:07:23 Q. And what -- what is ACOG?
11:07:26 A. ACOG is a professional organization of obstetricians and

11:07:33 gynecologists of the Americas. It provides professional
11:07:37 training and support.
11:07:38 Q. And is this an organization whose opinions and research
11:07:43 you rely on?
11:07:44 A. Yes.
11:07:44 Q. And does this document address fetal demise?
11:07:46 A. Yes.
11:07:47 Q. Are you relying on it to support your opinions?
11:07:51 A. Yes.
11:07:51 Q. I'd like to have you turn to the third page of the
11:07:55 document which is numbered at the bottom of the page 1396. Do
11:08:02 you see that?
11:08:03 A. Yes.
11:08:03 Q. And is there a section there entitled "Effecting Fetal
11:08:06 Demise"?
11:08:07 A. Yes.
11:08:07 Q. Can you read the first two sentences of that section.
11:08:14 A. It reads, "No evidence currently supports the use of
11:08:17 induced fetal demise to increase the safety of second-trimester
11:08:20 medical or surgical abortion. Techniques used to cause fetal
11:08:25 demise include division of the umbilical cord, intra-amniotic
11:08:31 or intrafetal digoxin injection, or fetal intracardiac
11:08:36 potassium chloride injection."
11:08:38 Q. And did you rely on these statements in forming your
11:08:41 opinions in this case?

11:08:43 A. Yes.
11:08:43 Q. And do you agree with those statements?
11:08:45 A. Yes.
11:08:46 Q. You've described three means of fetal demise. In your
11:08:54 opinion, if you were required to ensure fetal demise every
11:09:02 instance prior to performing a D&E, do you feel that you could
11:09:06 rely on the three methods that you've described?
11:09:09 A. No.
11:09:10 Q. And why not?
11:09:11 A. Well, as I've testified, there is a real failure rate in
11:09:19 the procedures that we've described in terms of injection of
11:09:26 KCl and digoxin. The umbilical transection report indicated
11:09:32 100 percent success. But, as I described, I have some concerns
11:09:36 about being able to provide that technique safely.
11:09:40 Q. And, if this law were in effect in Oregon, what impact do
11:09:48 you think it might have?
11:09:50 MR. MCCARTY: Objection, Your Honor. Lacks
11:09:52 foundation. He's not qualified to do this.
11:09:57 MS. CREPPS: Your Honor, if I may?
11:09:58 THE COURT: You may.
11:09:59 MS. CREPPS: I believe that, based on his testimony
11:10:02 about his experience in Oregon and training physicians and
11:10:06 working with physicians, including the experience of having to
11:10:10 comply with the federal partial-birth abortion ban, that he has
11:10:16 actually laid an adequate foundation for that.

MR. MCCARTY: I would suggest otherwise, in that he is -- counsel is asking the witness to apply the intricacies of Senate Bill 8 to his own practice in Oregon, which obviously he hasn't done. He's not a legal expert in SB 8 and can't testify to that, and there's been no foundation laid here.

THE COURT: Well, I'm not sure that's quite -- I'm pretty sure that isn't quite what she's asking. I'm going to allow the witness to answer the question on the basis of his familiarity with the language in Senate Bill 8 that he's previously testified about and how it would affect his practice. I think your objection goes more to the weight than the admissibility, and I will allow you complete cross-examination on it.

MR. MCCARTY: So my objection is overruled?

THE COURT: Your objection is overruled.

A. So if I were practicing in a setting where fetal demise was required, as I talked about in the partial-birth abortion ban, it would be somewhat different. So I do have experience with abiding by that ban, but we had an ability to still offer D&E procedures without violating the ban because we were able to demonstrate that we did not intend to perform a partial-birth abortion. In fact, we intended to do a standard D&E procedure, as defined in that decision.

In the setting where fetal demise would be required, there isn't a work-around. There isn't an alternative. So I

would be very nervous about being able to provide this service and not violating the law.

Q. And would you have concerns for your patients in that circumstance?

A. Of course. Patients come to me regularly requiring or requesting second-trimester abortion. And, if I were limited in how I could provide that, it would potentially increase their health care risks, as I've described, with the potential complications associated with the feticidal techniques that we've discussed.

Q. And would you have any particular concerns if you had to ensure demise in cases throughout the second trimester, beginning, I believe you said, at 15 weeks is when you would start to use forceps?

A. Well, for me that would be uncharted territory. I have no experience at attempting to achieve fetal demise under 18 weeks, and I would be in a situation where I would have to find some training and further skill development to be able to provide that procedure. I would also worry that, because there's not very much written about it in the literature, that we'd be essentially experimenting on patients to figure out how not to violate the law.

Q. And would you have concerns for the patients for whom you did a digoxin injection at 18 weeks and for whom the digoxin injection didn't work?

11:13:57 A. Yeah. As we have talked about before, if it didn't -- if
11:14:01 digoxin injection didn't work or, as I described, when it
11:14:05 doesn't work, if that -- if that law was in place where I was
11:14:10 practicing, I would be at risk of violating that law. I would
11:14:15 be really stuck.
11:14:17 MS. CREPPS: All right. I don't have any other
11:14:18 questions at this time.
11:14:20 THE COURT: Mr. McCarty, cross-examination?
11:14:22 MR. MCCARTY: Yes. Thank you, Your Honor.
11:14:24 **CROSS-EXAMINATION**
11:14:24 **BY MR. MCCARTY:**
11:14:24 Q. Dr. Nichols, good morning.
11:14:30 A. Good morning.
11:14:31 Q. Do you recall that we met earlier in your hometown of
11:14:35 Portland, Oregon when I took your deposition in this matter
11:14:38 last month?
11:14:38 A. Yes.
11:14:39 Q. And you were under oath during that deposition, correct?
11:14:41 A. Yes, I was.
11:14:42 Q. Okay. Dr. Nichols, before we get into the details, let me
11:14:44 be sure I understand some of your opinions here today. First,
11:14:47 you don't believe that using digoxin to cause fetal demise is a
11:14:52 violation of the standard of care, do you?
11:14:54 A. The standard of care?
11:15:00 Q. Yes.

11:15:00 A. So I'm not -- so in terms of standard of care, are we
11:15:05 talking about Texas or Oregon?
11:15:08 Q. Well, Dr. Nichols, do you -- do you believe that you
11:15:16 cannot testify today as to the standard of care regarding using
11:15:21 digoxin?
11:15:23 A. I have an opinion about the standard of care around use of
11:15:30 digoxin to cause fetal demise.
11:15:33 Q. And what is that opinion?
11:15:34 A. I don't believe that -- well, I believe that the standard
11:15:37 of care is defined by providers in a community that are
11:15:40 performing whatever procedure it is. And I can talk about
11:15:47 Oregon where I work, and I can describe the standard of care
11:15:49 with digoxin in that setting.
11:15:51 Q. Okay. Dr. Nichols, do you believe that using digoxin to
11:15:56 cause fetal demise violates the standard of care?
11:16:01 A. In Oregon, no.
11:16:04 Q. And are you suggesting that you don't know what the
11:16:08 standard of care is in Texas?
11:16:09 A. I've never practiced in Texas, so I -- and I haven't
11:16:18 quizzed the providers in Texas about that question.
11:16:22 Q. And you would have the same answer about the use of
11:16:25 potassium chloride, that it doesn't violate the standard of
11:16:28 care to use potassium chloride to cause fetal demise, correct?
11:16:33 A. Well, it depends what setting we're talking about. I'm
11:16:37 not going to suggest that maternal fetal medicine doctors

11:16:41 1 couldn't provide KCl to cause fetal demise in the appropriate
11:16:48 2 patient, but I would have -- I would feel that right now
11:16:55 3 providing KCl to cause fetal demise in the second trimester
11:17:02 4 among providers who haven't had appropriate training and skill
11:17:05 5 would be definitely outside their standard of care.
11:17:08 6 Q. Okay. Dr. Nichols, you recall I asked you that question
11:17:11 7 at your deposition, correct?
11:17:15 8 A. Yes.
11:17:16 9 MR. MCCARTY: Could you please play clip 52, 3 to 6.
11:17:21 10 "Question: ... using potassium chloride as a fetal
11:17:24 11 demise technique are violating the standard of care?
11:17:31 12 "Answer No."
11:17:33 13 MR. MCCARTY: Thank you.
11:17:35 14 Q. It doesn't violate the standard of care for a doctor to
11:17:39 15 perform a fetal demise technique prior to a D&E, does it?
11:17:43 16 A. Again, I don't know what exactly came before that
11:17:49 17 12-second videotape I just saw, but I feel like I've been able
11:17:55 18 to give a more informed, complete answer here this morning.
11:18:05 19 Q. That was not my question concerning potassium chloride. I
11:18:09 20 was moving on to a different question.
11:18:11 21 A. Okay.
11:18:11 22 Q. Okay. My question to you now is: You don't believe that
11:18:15 23 using potassium chloride -- I'm sorry -- strike that.
11:18:20 24 You don't believe that using a fetal demise technique
11:18:24 25 prior to performing a D&E violates the standard of care, do

11:18:29 you?
11:18:29 A. No.
11:18:29 Q. And, also, I want to make one other thing clear concerning
11:18:35 this particular case. It's your belief that using a suction
11:18:44 technique to perform an abortion at 15 to 16 weeks LMP would
11:18:51 almost certainly result in the dismemberment of the fetus
11:18:55 initially, correct?
11:18:57 A. Well, I don't go to 16 weeks. So, when you say 15, 16
11:19:02 weeks, I have to back away from that statement. But, giving
11:19:09 you the benefit of the doubt, since I do go up to 15 weeks, in
11:19:12 my experience, the fetus is always dismembered with suction.
11:19:16 Q. And is that 15 to 15.6 LMP?
11:19:20 A. I normally use -- well, it depends on the situation.
11:19:29 Sometimes we use suction, sometimes we use dilation and
11:19:33 evacuation, up to 15 weeks and 6 days.
11:19:36 Q. And, when you use suction up to 15.6 weeks, does it almost
11:19:46 always result in the dismemberment of the fetus?
11:19:49 A. Yes.
11:19:49 Q. Just a minute ago, Dr. Nichols, you indicated that you
11:19:55 didn't practice in Texas and you haven't quizzed doctors in
11:20:00 Texas, correct?
11:20:00 A. Correct.
11:20:01 Q. Okay. In fact, you've never talked to abortion providers
11:20:04 in Texas about at what ages they use suction, for instance, to
11:20:12 dismember a fetus?

11:20:14 A. Correct.
11:20:14 Q. You've never talked to providers in Texas about what fetal
11:20:20 demise techniques they already use today in Texas, correct?
11:20:26 A. Correct.
11:20:26 Q. You've never talked to them about whether they perform
11:20:29 D&Es in one day or two days or even three days, have you?
11:20:32 A. Not in any great detail. I see people at meetings and
11:20:38 there are casual conversations, but there hadn't been a
11:20:41 detailed conversation about that.
11:20:41 Q. So you don't know how long it takes for doctors in Texas
11:20:45 to complete a D&E at any particular gestational age, correct?
11:20:49 A. Well, I don't know the details of their practices, no.
11:20:53 Q. You've never talked to doctors in Texas about what
11:20:58 instrumentation they use to perform abortions in Texas,
11:21:02 including D&Es, correct?
11:21:04 A. Not to any great detail. I feel that physicians should
11:21:10 choose what they're most skilled in and what their training has
11:21:14 been.
11:21:15 Q. In fact, you can't remember even having a conversation
11:21:17 with doctors in Texas about whether they perform D&Es, correct?
11:21:22 A. I'm not sure that's true. I really can't recall. I'm
11:21:26 pretty confident we've had -- I've had discussions with
11:21:29 abortion providers in Texas and they've talked about performing
11:21:33 D&Es.
11:21:34 Q. Well, the answer is you're pretty sure or you can't

recall, specifically?
A. I'm pretty sure I've had those conversations.
Q. Okay. Let's see what you said at you deposition.
MR. MCCARTY: Could you play 17, 22 to 24.
"Question: Have you ever spoken to doctors in Texas about whether they do D&Es or not?
"Answer: I don't recall."
Q. (BY MR. MCCARTY) Now, Dr. Nichols, we were talking a little bit earlier about standard of care and whether causing fetal demise by various techniques violate the standard of care. Do you recall that?
A. Yes.
Q. Okay. You do know that there are doctors who believe that causing fetal demise prior to performing a D&E is medically beneficial, don't you?
A. Yes.
Q. Just one thing for the record, when I say D&E, you understand that to be dilation and evacuation?
A. Yes.
Q. That's your common terminology?
A. Yes, it is.
Q. You would agree that there's room for debate on the issue of whether there's a medical benefit to causing fetal demise prior to a D&E, correct?
A. I don't agree with the opinions of the folks who feel that

11:23:01 way, but sure. There can be debate about anything.
11:23:04 Q. You don't believe that it's a black-and-white issue, do
11:23:10 you?
11:23:11 A. Well, if your asking whether or not there's benefit to
11:23:14 providing fetal demise prior to a D&E procedure, my very firm
11:23:19 opinion is there is no benefit. So, in my mind, it is black
11:23:23 and white. I respect the opinions of others, but I don't agree
11:23:25 with them.
11:23:26 MR. MCCARTY: All right. Let's play back what you
11:23:28 said at your deposition at 30, 9 to 14.
11:23:31 "Question: Do you believe there is any room for
11:23:36 reasonable debate on that topic?
11:23:40 "Answer: There's reason -- there's room for debate
11:23:45 on every topic. I mean, I respect people's opinions.
11:23:49 "Question: So it's not a black-and-white issue?
11:23:56 "Answer: No."
11:23:59 Q. (BY MR. MCCARTY) Do you recall giving that testimony?
11:24:01 A. I do.
11:24:02 Q. Okay. Dr. Nichols, I'm going to talk to you a little bit
11:24:09 about potassium chloride, which you talked about a little bit
11:24:12 earlier today.
11:24:13 You personally have never used potassium chloride to
11:24:17 induce fetal demise, have you?
11:24:19 A. No, I have not.
11:24:20 Q. You have never attempted to inject potassium chloride into

11:24:24 a fetal heart, have you?
11:24:25 A. No.
11:24:26 Q. You've never attempted to inject a fetus's thorax with
11:24:31 potassium chloride, have you?
11:24:34 A. No.
11:24:34 Q. Okay. And when you talked about using potassium chloride
11:24:38 earlier today, you were talking almost exclusively about trying
11:24:42 to inject potassium chloride into the fetal heart, correct?
11:24:46 A. Yes.
11:24:46 Q. Okay. Because that's your understanding of how potassium
11:24:52 chloride must be used to be effective, correct?
11:24:55 A. My opinion is informed from the standard practice of the
11:25:00 maternal fetal medicine doctors that I work with and the
11:25:03 medical literature I reviewed. As I mentioned in earlier
11:25:07 testimony, there are descriptions of other routes of injection,
11:25:10 but the standard literature and standard technique described is
11:25:16 intracardiac injection.
11:25:18 Q. But you've tried none of those techniques?
11:25:20 A. I have never performed or attempted an injection of
11:25:25 potassium chloride into a fetus, no.
11:25:28 Q. Do you recall that you gave some testimony earlier this
11:25:31 morning that there is a technical difference in the difficulty
11:25:33 of injecting potassium chloride versus digoxin intrafetally?
11:25:41 Do you recall that?
11:25:42 A. Yes.

11:25:42 Q. And you indicated earlier that it was your opinion that it
11:25:46 was harder to inject potassium chloride intrafetally, correct?
11:25:51 A. Well, what I was specifically describing was advancing a
11:25:58 needle into the heart of a fetus is more difficult --
11:26:01 Q. Correct.
11:26:01 A. -- than injecting anywhere in the fetus.
11:26:04 Q. Correct. So there is no technical difference in injecting
11:26:10 potassium chloride intrafetally -- not intracardially, but
11:26:15 intrafetally -- and digoxin intrafetally, correct?
11:26:21 A. I would agree. Because it's the same technique of placing
11:26:25 a needle in a fetus. And if you inject some material, it's
11:26:29 technically the same procedure.
11:26:32 Q. The primary research and knowledge that you have
11:26:44 concerning potassium chloride injections to induce fetal demise
11:26:49 is entirely from your review of articles in preparation for
11:26:57 your opinion in this case, correct?
11:26:59 A. I take care of patients who have had potassium chloride
11:27:04 injections. I work with maternal fetal medicine providers who
11:27:09 provide that. So that also informs my opinion.
11:27:12 Q. But your opinion in this case was primarily formed by
11:27:15 reading articles, correct?
11:27:17 A. No. As I just stated, I -- I have an opinion based on my
11:27:21 own experience.
11:27:23 Q. And those patients that you manage that have had potassium
11:27:27 chloride injections, you don't do the injections, correct?

11:27:30 A. Correct.
11:27:31 Q. Earlier today you talked about the difference in the
11:27:43 result of a suction technique versus a D&E technique on the
11:27:50 dismemberment of the fetus. Do you recall that?
11:27:53 A. I believe so.
11:27:54 Q. Yeah. Well, the real difference between when doctors use
11:28:01 a suction technique and a D&E technique is the gestational age
11:28:06 of the unborn child, correct?
11:28:08 A. "Unborn child" is not a medical term.
11:28:14 Q. Uh-huh. You prefer the term "fetus"?
11:28:16 A. That's the medically correct term.
11:28:19 Q. So, to put it in your terms, the difference between when
11:28:25 doctors use dilation and evacuation and a suction technique is
11:28:34 the gestational age of the fetus?
11:28:37 A. No.
11:28:37 Q. Okay. What is the difference?
11:28:40 A. As I mentioned, it depends on the situation. And, to
11:28:45 expand on that, if the cervix is not very dilated, then
11:28:49 oftentimes at a -- at an earlier gestation, a cannula is used.
11:29:00 If the cervix is more dilated, a forceps can be used. So it
11:29:04 all depends upon cervical dilation -- well, that's a main
11:29:08 factor. An additional factor is gestational age.
11:29:14 Q. Yeah. And I guess I'm a little bit confused, because all
11:29:16 I've heard from your testimony this morning is that dilation
11:29:18 and evacuation doesn't begin until 15 weeks and up.

11:29:26 A. So there are cases where I use either an instrument in an
11:29:36 earlier procedure to complete it or sometimes -- and I always
11:29:41 use a suction procedure later in gestational age to complete
11:29:45 it.
11:29:45 Q. Well, completing it is different than using suction to
11:29:53 completely perform the abortion, correct?
11:29:56 A. So let me try to explain. So, in an earlier pregnancy, I
11:30:05 often use a forceps device. Like at 14 weeks, on occasion, I
11:30:12 would use forceps because I've been unable to remove the entire
11:30:16 fetus. And so, under ultrasound visualization, I may complete
11:30:20 the procedure using forceps. So I do end up using them in
11:30:24 earlier gestation sometimes.
11:30:26 Q. And, under your understanding of Senate Bill 8, when you
11:30:34 have begun and partially completed the dismemberment of the
11:30:38 fetus prior to using forceps, it would not be covered by the
11:30:42 requirements of Senate Bill 8, correct?
11:30:45 A. Well, as you pointed out, I'm not a lawyer. But I
11:30:47 believe, from my interpretation of SB 8, that that would not be
11:30:53 a violation.
11:30:54 Q. So to make a simple question hard, I'll ask you one more
11:30:59 time: The primary ages that we are dealing with related to D&E
11:31:06 as opposed to suction in your practice is 15 weeks and up,
11:31:13 correct?
11:31:17 A. Can you say that one more time? I want to make sure I
11:31:19 answer ...

11:31:20 Q. Sure. Because I want to -- I think this is becoming
11:31:24 unnecessarily difficult. We've been talking all morning, as I
11:31:30 understand it, about dilation and evacuation and your
11:31:36 understanding that that procedure primarily begins at 15 weeks
11:31:39 LMP and up.
11:31:41 A. That's my practice.
11:31:42 Q. Yes. And that's your understanding as an expert on
11:31:51 second-trimester abortions, isn't it?
11:31:53 A. No. It's going to vary based on the -- the skill and
11:31:57 training and experience of the provider. There will be some
11:32:00 who use a different cutoff than what I do.
11:32:03 Q. But you also believe that, prior to 15 weeks LMP, a
11:32:08 suction technique can be used to perform the abortion?
11:32:11 A. Yes.
11:32:13 Q. And your study of the literature concerning potassium
11:32:26 chloride injections to cause fetal demise, you know, at least
11:32:32 from that reading, that fetal demise has occurred via potassium
11:32:38 chloride as early as 13 weeks, correct?
11:32:41 A. Yes. When it's injected into the heart of the fetus.
11:32:47 That's the literature that I'm familiar with.
11:32:49 Q. Okay. Dr. Nichols, turning to digoxin, digoxin is not a
11:32:57 brand new technique for causing fetal demise, is it?
11:33:00 A. No.
11:33:01 Q. In fact, at least as far as your aware, it's been in use
11:33:06 for at least more than 10 years, correct?

11:33:08 A. Yes.
11:33:09 Q. In your practice you've only used digoxin personally
11:33:15 approximately 50 times, correct?
11:33:17 A. I'm sorry?
11:33:18 Q. In your practice you've only used digoxin injections
11:33:24 approximately 50 times, correct?
11:33:26 A. I don't have an exact number, but that's probably about
11:33:29 right. That's not something I've tracked.
11:33:32 Q. Okay. Earlier today you talked about how you learned to
11:33:38 use digoxin injections on fetuses, and you first mentioned that
11:33:49 you initially watched another provider use digoxin injections,
11:33:53 correct?
11:33:54 A. Well, it was injecting into the fetus, and in some cases
11:33:59 it was KCl and in some cases it was digoxin.
11:34:03 Q. And you watched that procedure less than 10 times,
11:34:06 correct?
11:34:07 A. That's probably about right.
11:34:11 Q. All right.
11:34:12 A. I didn't track those numbers precisely. It was a long
11:34:15 time ago.
11:34:15 Q. And then, to become proficient in it, you injected digoxin
11:34:22 into a fetus less than 10 times, correct, under supervision?
11:34:28 A. Again, I don't recall the precise number, but that's
11:34:32 probably about right.
11:34:33 Q. And right now, Dr. Nichols, you teach your family planning

11:34:39 fellows at OHSU to inject digoxin into a fetus, correct?
11:34:45 A. Yes.
11:34:45 Q. And you also teach residents to do so?
11:34:47 A. They really observe. They're not -- they're not at a
11:34:53 point of doing those injections.
11:34:56 Q. Okay. When you teach your fellows to use digoxin, these
11:35:01 are not maternal fetal medicine specialists, are they?
11:35:06 A. No.
11:35:06 Q. They're ob-gyns that are performing a fellowship in family
11:35:11 planning, correct?
11:35:12 A. Yes.
11:35:13 Q. The first thing you do is you have them read some
11:35:20 materials and have some discussions about those materials,
11:35:24 correct?
11:35:24 A. Yes.
11:35:25 Q. And then they observe some digoxin injections, correct?
11:35:32 A. Yes.
11:35:32 Q. And then you have them perform the ultrasound technique
11:35:35 approximately five to 15 times to gain competence in that,
11:35:39 correct?
11:35:39 A. You know, there's not a fixed number. The goal is to make
11:35:48 sure they are skilled at this technique. So there's always an
11:35:51 assessment by a teacher as to whether or not the learner is
11:35:56 competent in a particular technique. So, rather than focus on
11:36:01 a number, we focus on their ability to perform whatever it is

11:36:06 we're training them. Five to 15 sounds like a reasonable
11:36:10 number.
11:36:10 Q. Well, in fact, you indicated earlier in your deposition
11:36:17 that five was the minimum, correct? And that's your testimony
11:36:22 today?
11:36:22 A. I don't recall saying that. Again, I want to really focus
11:36:26 on the competence question. For some it may be as few as five,
11:36:30 and for others it may be more than five.
11:36:32 Q. Okay. Let's see what you said at your deposition.
11:36:35 MR. MCCARTY: Play 97, 11 to 17.
11:36:46 "Question: Roughly five to 15, but it could vary a
11:36:50 little bit on either end?
11:36:52 "Answer: On the ultrasound guidance of the needle
11:36:55 placement.
11:36:56 "Question: Correct. And then you move to needle
11:36:59 placement itself?
11:37:00 "Answer: Correct."
11:37:04 Q. (BY MR. MCCARTY) Okay. And do you remember that you also
11:37:05 said, and it's your opinion today, that to reach competence in
11:37:09 the actual needle placement, they need to try it roughly 10 to
11:37:12 25 times?
11:37:15 A. I'm sorry. I --
11:37:16 Q. Sure.
11:37:17 A. I don't --
11:37:18 Q. Sure.

11:37:18 A. -- recall a specific number. But, again, it's going to
11:37:21 vary, and it's really about achieving competence.
11:37:24 Q. Right. And, to achieve competence, they need to do that
11:37:28 needle placement 10 to 25 times under supervision, correct?
11:37:34 A. They need to do the needle placement enough times for the
11:37:36 teacher to assess that they're competent, and that number will
11:37:40 vary.
11:37:40 MR. MCCARTY: Okay. Let's play cut 98, 9 to 99, 3.
11:37:46 "Question: What are the fewest number of times one
11:37:49 of your fellows has needed to administer digoxin intrafetally
11:37:57 to prove competence?
11:37:59 "Answer: So my opinion about competence of an
11:38:05 individual performing a procedure may vary to -- compared to
11:38:09 some of my colleagues. So what I -- what I'm reflecting is my
11:38:13 own experience. And it's -- again, it's a real challenge to
11:38:21 come up with a number because they may have done nine and --
11:38:28 say, just picking a number. And then on number 10 you're
11:38:31 thinking, well, this may be where they're really proving that
11:38:34 they're ready, and then they completely flub it, right? So
11:38:40 that's the natural -- or natural evolution of learning a skill.
11:38:46 So I hesitate to give a number, but probably the least ever
11:38:53 would be 10.
11:38:56 "Question: How about on the high end?
11:38:59 "Answer: I don't know. Twenty-five. And, again, I
11:39:04 really hesitate to give a number because it's going to vary.

11:39:09 It's not an easy technique."
11:39:11 Q. (BY MR. MCCARTY) Okay. Dr. Nichols, the quality of
11:39:17 ultrasound equipment needed to guide a needle placement
11:39:20 intrafetally is the kind of ultrasound equipment that you would
11:39:24 find at any ob-gyn office, correct?
11:39:27 A. No.
11:39:28 MR. MCCARTY: Let's play clip 111, 19 to 112, 11.
11:39:38 "Question: And what would be required, as you can
11:39:43 describe it, for ultrasound to be effective in guiding for an
11:39:48 intrafetal injection?
11:39:52 "Answer: For an intrafetal and not with an intent --
11:39:56 to be clear, not an intracardiac-planned injection -- there has
11:40:00 to be good clarity of the image such that the person with the
11:40:07 needle is able to see and the person holding the ultrasound
11:40:13 probe is able to see the tip of the needle as it's entering
11:40:18 into the uterine wall, into the amniotic fluid, and,
11:40:22 eventually, with this procedure, into the fetus.
11:40:27 "Question: And do you have that equipment at OHSU?
11:40:30 "Answer: Well, we have quite an array of equipment
11:40:35 at OHSU. The maternal fetal medicine folks have very high-end
11:40:40 equipment. What we have in our clinic where we're performing
11:40:44 intrafetal injections of digoxin are more sort of average
11:40:51 quality, similar to what might be present in an ob-gyn."
11:41:08 Q. (BY MR. MCCARTY) Dr. Nichols, you talked about your
11:41:11 experience and your practice of injecting digoxin intra- or

transabdominally, correct?
A. Yes.
Q. And that's what you do?
A. Yes.
Q. Okay. You do know that there are doctors that administer digoxin transcervically or transvaginally, correct?
A. I said that in my deposition -- in my testimony earlier, yes.
Q. Yes. And when you talked about that earlier, you talked about those transcervical or transvaginal injections being intra-amniotic?
A. Yes.
Q. Okay. They could also be intrafetal, correct?
A. Well, the article that I referred to did not report any intrafetal injections. In their -- in their experience, they report that those were all intra-amniotic injections. I suppose it might be possible, but I have no experience, and that's not what the literature reports.
Q. And you don't know what doctors in Texas are doing related to transcervical or transvaginal and intrafetal injections, correct?
A. In terms of whether or not they're injecting at all or intra-amniotic or intrafetal? I'm not sure what you're asking.
Q. Intra-amniotic or intrafetal.
A. No. I don't know.

11:42:46 Q. You personally know around 25 abortion providers in your
11:42:50 hometown of Portland, Oregon who choose to use digoxin to cause
11:42:54 fetal demise, correct?
11:42:55 A. Yes.
11:42:56 Q. All right. And you aren't aware of a single patient death
11:43:01 from the use of digoxin to cause fetal demise, are you?
11:43:05 A. No.
11:43:06 Q. In fact, you don't know of a single abortion patient who
11:43:12 suffered any lasting impairment from the use of digoxin,
11:43:14 correct?
11:43:15 A. Not lasting impairment. I know -- I've read reports of
11:43:19 EKG changes and changes in vital signs associated with that.
11:43:24 Q. Just to make -- make your answer clear, you're not aware
11:43:28 of any patient who suffered any lasting impairment from the use
11:43:33 of digoxin as a fetal demise technique, correct?
11:43:37 A. Correct.
11:43:37 Q. We talked a lot about studies earlier, and I want to make
11:43:43 sure that we understand this. There is no study indicating
11:43:50 that the use of digoxin on a patient at under 18 weeks
11:43:58 gestation is in fact riskier than over 18 weeks, is there?
11:44:05 A. Not that I know of.
11:44:07 Q. And, sitting here today, you can't give me any reason why
11:44:11 digoxin would cause different complications for a mother at
11:44:14 18 weeks gestational age versus 17 weeks gestational age, can
11:44:21 you?

11:44:21 A. Say that one more time. I'm sorry.
11:44:23 Q. Sitting here today, you can't give me any reason why
11:44:28 digoxin would cause different complications in a woman at
11:44:35 18 weeks LMP versus a woman at 17 weeks LMP, for instance?
11:44:41 A. Yeah. I think the complications that occur at 18 weeks
11:44:44 would likely also occur at 17 weeks.
11:44:46 Q. But they wouldn't be different?
11:44:47 A. There would be complications at both gestational ages,
11:44:51 yeah.
11:44:51 Q. And you can't think of a difference between the two?
11:44:54 A. I -- my concern -- again, I don't have experience in
11:44:59 performing those. I believe that achieving fetal demise would
11:45:05 be more difficult as 17 weeks, as I earlier testified.
11:45:09 Q. And you indicated earlier that was because there would be
11:45:15 more amniotic fluid at, for instance, 17 weeks to 18 weeks,
11:45:21 correct?
11:45:23 A. It's the ratio of the size of the fetus to the amount of
11:45:27 amniotic fluid, and that increases the earlier the gestational
11:45:32 age.
11:45:32 Q. And you have no idea what the difference in size of a
11:45:36 fetus is from 17 weeks to 18 weeks, do you?
11:45:41 A. I'm not -- I believe there is a difference in size.
11:45:45 Q. But you don't know what that size difference is?
11:45:48 A. I would have to refer to a resource to give you precise
11:45:54 numbers.

11:45:55 Q. So you don't know what the ratio difference is between
11:46:01 amniotic fluid and fetal size, for instance, between 17 and
11:46:06 18 weeks?
11:46:10 A. Not off the top of my head.
11:46:12 Q. You've never looked at it?
11:46:13 A. There is literature that describes that, and I'd be happy
11:46:16 to get that for you. But I don't have that.
11:46:18 Q. But it didn't inform your opinion here today?
11:46:20 A. Well, as I stated before, the ratio of fluid to fetal size
11:46:26 is different. And, in my opinion, it would be more difficult
11:46:29 to achieve intrafetal injection when the fetus is smaller
11:46:33 relative to the amount of amniotic fluid. It's my opinion.
11:46:40 Q. But you can't tell the Court today what difference that
11:46:43 ratio would be between fetal size and the amniotic fluid at,
11:46:50 for instance, 17 to 18 weeks?
11:46:53 A. Not with -- not without a resource where I could give you
11:46:57 precise measurements. Those numbers exist. Those measurements
11:47:01 have been obtained. I just don't have them on the top of my
11:47:05 head.
11:47:05 Q. Right. And they did not inform your opinion that you're
11:47:08 giving today?
11:47:09 A. No. Again, my opinion is based on my knowledge, knowing
11:47:14 that there is a difference in the ratio. And I believe that an
11:47:19 injection would be more difficult when the fetus is smaller
11:47:23 relative to the amount of amniotic fluid.

11:47:26 Q. Well, it would certainly make a difference about how much
11:47:29 more difficult it might possibly be, depending on whether the
11:47:33 fetus is 1 centimeter bigger or smaller or 12 inches bigger or
11:47:39 smaller, correct?
11:47:40 A. Well, again, we're in a territory that hasn't been well
11:47:43 described.
11:47:44 Q. Right. You haven't studied it, and it didn't inform your
11:47:48 opinion today as to the size specifically between, for
11:47:52 instance, 17 weeks LMP and 18 weeks LMP.
11:47:57 A. What I said and still believe is that there isn't
11:48:03 literature under 17 weeks about intrafetal injections, and so
11:48:07 it would be uncharted territory for providers to attempt those
11:48:13 injections.
11:48:15 Q. With all due respect, Dr. Nichols, that was completely
11:48:20 nonresponsive.
11:48:21 A. Well, I apologize. I'm trying to answer your questions.
11:48:24 Q. I am simply asking something very straightforward.
11:48:28 A. Okay.
11:48:29 Q. You don't know, and you didn't study for your opinion, the
11:48:34 difference in fetal size or the ratio between fetal size and
11:48:40 amniotic fluid between pre-18 weeks LMP and post-18 weeks LMP.
11:48:47 MS. CREPPS: Your Honor, I'm going to object as asked
11:48:49 and answered at this point.
11:48:51 THE COURT: No. It hasn't been. Overruled. You may
11:48:53 proceed, Mr. McCarty.

11:48:55 A. So, again, I'm really trying to answer your question. No,
11:49:03 I did not go and precisely look at the known measurements of
11:49:08 the volume of amniotic fluid and the size of the fetus at
11:49:12 various gestational ages.
11:49:19 However, I do know with certainty that that ratio is
11:49:22 different, and the amount of fluid around the fetus relative to
11:49:30 the size of the fetus increases the earlier the gestational
11:49:33 age. And, based on that, it is my opinion that it would be
11:49:36 technically more difficult to inject into the fetus when the
11:49:41 ratio of fetal size is smaller compared to amniotic. So
11:49:48 earlier in the pregnancy, the more difficult that injection
11:49:51 would be.
11:49:53 Q. But you cannot testify today as to whether any provider in
11:49:57 Texas would be able, for instance, to perform an intrafetal
11:50:02 injection at 17 weeks versus over 18 weeks based on what you've
11:50:07 prepared to present your opinion today?
11:50:17 A. I want to be accurate. Can you ask that again?
11:50:19 Q. Sure. Based on what you've done to give your opinion to
11:50:23 this Court today, you cannot tell the Court whether a provider
11:50:27 in Texas would be competent to perform an intrafetal injection
11:50:32 at post-18 weeks LMP versus, for instance, 17 weeks LMP?
11:50:37 A. No, I can't.
11:50:47 Q. Dr. Nichols, for abortion providers that use fetal demise
11:50:56 techniques today, their primary reason for doing so is to
11:51:05 prevent the live delivery of a possibly viable baby outside the

11:51:08 abortion clinic, correct?
11:51:10 A. No. That's one of the reasons. Sometimes it's patient
11:51:20 request.
11:51:20 Q. Okay. So those are the two reasons that you're aware of,
11:51:27 correct?
11:51:27 A. As you mentioned, there are some providers who believe it
11:51:30 makes for a safer D&E procedure. I respect their opinion.
11:51:35 They do it for that reason. So that would be another one.
11:51:40 Q. You remember at your deposition that you told me the
11:51:43 primary reason was to avoid the live delivery of a possibly
11:51:49 viable fetus outside the abortion clinic, correct?
11:51:53 A. So I believe that my answer was in the context of when I
11:51:59 am and when my colleagues are performing digoxin injections in
11:52:06 our setting, which is after 22 weeks. And one of the primary
11:52:11 reasons to do that is to avoid an extramural delivery.
11:52:18 Q. And they don't want an extramural delivery because
11:52:22 somebody might attempt to help a baby who's supposed to be
11:52:25 aborted to continue living, correct?
11:52:27 A. That's one of the reasons. But, as I described in my
11:52:31 earlier testimony, there is also the factor of going through
11:52:35 labor, delivering a baby, perhaps at home, perhaps in a hotel
11:52:40 room, and the associated potential complications associated
11:52:44 with any delivery, such as bleeding, primarily.
11:52:48 Q. Well, whether the fetus is still living or the fetus is
11:52:55 dead in an extramural -- in a delivery situation doesn't --

11:53:01 doesn't affect any of those risks, correct?
11:53:04 A. In terms of the risks of bleeding, no. Those would be the
11:53:11 same. But in terms of the experience that a woman would go
11:53:16 through in delivering a fetus, either alive or dead, at home,
11:53:22 in a hotel room, those would be pretty similar.
11:53:27 Q. Yeah. And the real issue is that abortion providers don't
11:53:33 want to have a situation on their hands where a mother delivers
11:53:38 a fetus that is living that could possibly be helped to survive
11:53:44 at that point through some intervention, correct?
11:53:46 A. That's one of their motivations.
11:53:49 Q. In fact, there could be all kinds of circumstances around
11:53:55 that that would cause legal violations for those abortion
11:54:02 providers, correct?
11:54:03 A. I'm sorry. There would be all sorts of what did you say?
11:54:05 Q. Well, preventing live delivery of a periviable fetus could
11:54:15 cause an abortion provider to get in trouble with the law,
11:54:18 correct?
11:54:18 A. In trouble with the law? No. I don't believe so.
11:54:25 Q. For instance, if there was no attempt to resuscitate or
11:54:31 help that baby continue living?
11:54:35 A. I don't -- the decision whether or not to resuscitate a
11:54:41 23-week fetus is a decision made by the providers who are
11:54:47 attending that delivery.
11:54:51 Q. Which it could be an abortion provider; could be others?
11:54:54 A. Well, in the setting of an extramural delivery, in my

11:55:00 experience, it most of the time is an emergency room staff
11:55:04 that's dealing with that or, on occasion, a pediatrician.
11:55:13 Q. You also mentioned that abortion providers use digoxin
11:55:18 because patients request it, correct?
11:55:20 A. Yes.
11:55:21 Q. And the reason patients ask for digoxin is because they
11:55:25 believe that the fetus can feel pain, right?
11:55:28 A. That's their primary motivation.
11:55:32 Q. If an attempt to use digoxin to cause fetal demise doesn't
11:55:43 work initially, there are several alternatives that you can
11:55:48 undertake to induce fetal demise at that point, correct?
11:55:53 A. Well, we've talked about two.
11:55:55 Q. Okay.
11:55:56 A. Referring to a MFM provider to perform an intracardiac KCl
11:56:03 injection or attempt an umbilical transection and, hopefully in
11:56:13 that attempt, not violating the law.
11:56:15 Q. And a third is -- which you don't practice, a third is a
11:56:19 second digoxin injection, correct?
11:56:22 A. I've never done that, and I suppose it would be an
11:56:24 alternative. I would -- again, we don't have experience with
11:56:28 that. I would worry that it -- if it didn't work the first
11:56:32 time, it may not work the second time. But I don't know
11:56:36 because there's not a lot of literature about that.
11:56:39 Q. One of the risks or concerns you mentioned about an
11:56:46 intra-abdominal injection is a patient's concern about pain,

11:56:51 correct?
11:56:52 A. Intra-abdominal fetal injection?
11:56:55 Q. I'm sorry transabdominal injection is pain?
11:57:01 A. So one my of my concerns is, when a needle is inserted
11:57:05 through the abdominal wall of a woman, that she experiences
11:57:09 pain, yes.
11:57:10 Q. And a patient --
11:57:11 A. And also -- sorry to interrupt. But, in addition, she has
11:57:15 significant cramping of her uterus when the needle enters --
11:57:21 goes through the uterine muscle.
11:57:24 Q. And, if a woman is concerned about pain from a
11:57:30 transabdominal injection, you have a range of options to offer
11:57:33 her to mitigate that pain, correct?
11:57:36 A. Like any painful procedure, medications can be
11:57:39 administered to the woman to sedate her or put her to sleep or
11:57:44 something like that. Yes. That could be done.
11:57:46 Q. You're not aware of any study that has demonstrated that a
11:57:55 digoxin injection as opposed to any other portion of a D&E
11:58:01 procedure causes infection, correct?
11:58:09 A. No. There are reports of infection occurring, it's
11:58:15 believed, from the injection of the digoxin. However, I will
11:58:20 admit that determining the cause of infection when it occurs is
11:58:27 difficult to ascertain -- was it from the injection or was it
11:58:33 from some other cause? There are reports that when you compare
11:58:38 women who have had digoxin injection compared to saline or not,

11:58:43 that there's greater risk -- there's greater incidence of
11:58:47 infection. So, based on that, I believe there is a risk.
11:58:51 Q. But there is no determinative way to prove causation of a
11:58:57 greater infection risk from digoxin as opposed to any other
11:59:05 part of the D&E procedure?
11:59:08 A. Well, I can -- I haven't had the personal experience.
11:59:13 But, for example, if the bacteria that are commonly on the skin
11:59:19 end up causing a serious intrauterine infection, that in my
11:59:28 mind would be good evidence that it was caused by the
11:59:30 injection.
11:59:30 Q. But you have no foundation that there has been such proof
11:59:36 of any increased incident of that occurring?
11:59:40 A. I have no experience with that particular scenario. I
11:59:46 don't know literature that has reported the specific organism
11:59:50 that has caused infection. But, as I stated, there is evidence
11:59:54 that women who have had injections do carry a greater risk of
11:59:58 infection compared to those who have not.
12:00:03 Q. Dr. Nichols, to be clear, because there was some testimony
12:00:09 around this, you've never talked to any doctors in Texas about
12:00:14 their reaction to Senate Bill 8, correct?
12:00:18 A. Correct.
12:00:21 Q. One other thing, Dr. Nichols. Do you -- do you know a
12:00:24 doctor at OHSU --
12:00:27 THE COURT: Well, I think before we get into another
12:00:29 topic, this is a good place to take our noon recess.

MR. MCCARTY: I have literally two questions. Is that okay?

THE COURT: I'll count them.

MR. MCCARTY: Okay.

Q. Do you know Dr. Khoi at OHSU?

A. He's my boss.

Q. Okay.

MR. MCCARTY: That's it. One question.

THE COURT: There you go. Good to your word. At this time we'll take our noon recess. We'll be in recess until 1:30.

(Recess)

(Open Court)

THE COURT: At the recess the defendants passed the witness. Do the plaintiffs have redirect?

MS. CREPPS: Briefly, Your Honor.

THE COURT: You may proceed.

MS. CREPPS: Thank you.

REDIRECT EXAMINATION

BY MS. CREPPS:

Q. Dr. Nichols, during your cross-examination, you were asked about the standard of care. Do you recall that?

A. Yes.

Q. And can the standard of care reflect both national standards and local standards?

13:32:22 A. Yes.
13:32:23 Q. You were asked about whether causing demise with digoxin
13:32:28 is within the standard of care. Do you recall that?
13:32:31 A. Yes.
13:32:31 Q. In your opinion, is a digoxin injection above 18 weeks
13:32:40 within the standard of care?
13:32:42 A. Yes.
13:32:43 Q. Do you have an opinion as to whether digoxin below
13:32:48 18 weeks is within the standard of care?
13:32:50 A. Yes. I believe it is not in the standard of care because
13:32:54 there is very, very little information about the safety of that
13:32:59 procedure.
13:33:02 Q. And you were asked about physicians who believe that
13:33:06 digoxin makes the procedure easier.
13:33:10 A. Yes.
13:33:10 Q. Are you aware of any physicians who hold the belief that
13:33:14 digoxin injections prior to 18 weeks make the procedure easier?
13:33:21 A. No. I know of no physicians that have that opinion.
13:33:26 Q. You were also asked about whether KCl for demise is within
13:33:31 the standard of care. Do you recall that?
13:33:35 A. Yes.
13:33:36 Q. And do you believe that KCl to cause demise is within the
13:33:39 standard of care for procedures performed at OHSU?
13:33:44 A. Yes. And, as I testified, that is provided by MFM
13:33:51 colleagues.

13:33:51 Q. And in what setting?
13:33:53 A. In the hospital and in their hospital-based clinics.
13:34:05 Q. And are you aware of any abortion providers within outpatient abortion clinics who are providing KCl for demise?
13:34:13 A. No.
13:34:14 Q. And do you have an opinion on whether that practice of causing demise with KCl in the outpatient abortion clinic would be within the standard of care?
13:34:26 A. Yeah. My opinion is that it would not be the standard of care.
13:34:31 Q. And why is that?
13:34:32 A. Because, again, there is very little experience among abortion providers. They don't have the skill or the experience or training to be able to safely provide that.
13:34:46 Q. You also were asked some questions involving periviable fetuses.
13:34:53 A. Yes.
13:34:54 Q. In your opinion, is a fetus at 21.6 weeks or below periviable?
13:35:01 A. No.
13:35:01 Q. Another topic that you were asked about was the technical skills for doing intrafetal digoxin and intrafetal KCl. Do you recall that?
13:35:20 A. Yes.
13:35:21 Q. And I believe your testimony was that the technical skills

13:35:24 for performing intrafetal KCl injections would in fact be
13:35:28 similar to intrafetal digoxin; is that correct?
13:35:32 A. Yes.
13:35:33 Q. Do you believe that intrafetal KCl injections outside of
13:35:40 the fetal heart have been adequately studied?
13:35:45 A. No.
13:35:46 Q. You were further asked whether digoxin below 18 weeks
13:35:56 would impose different risks than digoxin above 18 weeks.
13:36:00 A. Yes.
13:36:01 Q. As a physician, do you assume that a change in practice
13:36:07 such as beginning to use digoxin below 18 weeks would -- let me
13:36:15 ask that question again.
13:36:16 As a physician, do you assume that a change in
13:36:20 practice such as going below 18 weeks with digoxin injections
13:36:24 would be safe and effective?
13:36:28 A. No. I would want to see well-done research that was
13:36:39 screened by investigational review boards and of high
13:36:42 scientific quality and rigor that would then be reviewed in a
13:36:47 peer-review manner and published before I would accept that as
13:36:52 being an acceptable step to take to -- to go beyond -- or go
13:36:58 below 18 weeks.
13:37:01 MS. CREPPS: Thank you, Doctor. I don't have any
13:37:02 other questions.
13:37:06 THE COURT: Mr. McCarty, any recross?
13:37:11 MR. MCCARTY: Yes, Your Honor. Just very briefly.

RECROSS-EXAMINATION

BY MR. MCCARTY:

Q. Dr. Nichols, you just testified that using digoxin below 18 weeks gestational age to cause fetal demise would violate the standard of care; is that correct?

A. I said it's not the standard of care below 18 weeks.

Q. So you believe that, if abortion providers in Texas have in fact used digoxin at below 18 weeks, they are potentially subject to malpractice; is that correct?

A. No. I don't believe that's what I said. What I did say was that careful research could be done below 18 weeks. And, in fact, we discussed a paper earlier that did investigate some patients, in my mind, in a well-done study. But -- so there is one paper that has investigated that.

Q. And so it's not your testimony that, if abortion providers in Texas provide digoxin injections below 18 weeks, that they would be subject to malpractice?

A. Well, we weren't really talking about malpractice. I was talking about standard of care. And I do believe that, at this point in time, if abortion providers in Texas start injecting or attempt to inject fetuses under 18 weeks, that would be outside the standard of care.

Q. And, Dr. Nichols, you are aware that the standard of care does have legal implications, correct?

A. Yes.

13:38:43 Q. Okay. So it's a very simple question. Is it your belief
13:38:48 that, if abortion providers in Texas are currently providing
13:38:53 digoxin injections at times under 18 weeks, that they are
13:38:57 subject to malpractice?
13:38:59 A. Well, I am no lawyer.
13:39:04 Q. I didn't say -- I didn't say -- I didn't say liable for or
13:39:07 any anything like that. I said subject to malpractice because
13:39:12 they've violated the standard of care.
13:39:14 MS. CREPPS: Your Honor, I'm going to object. I
13:39:15 think this is way out of the scope of my direct.
13:39:18 THE COURT: The objection is sustained. Malpractice
13:39:20 is a term of art. The witness is testifying about standard of
13:39:23 care.
13:39:23 MR. MCCARTY: Okay.
13:39:24 THE COURT: Although they're closely related, there's
13:39:26 not a direct bridge there.
13:39:28 MR. MCCARTY: All right. Thank you, Your Honor.
13:39:29 THE COURT: So I think you-all are getting to the
13:39:33 same point, but you're using different words.
13:39:35 MR. MCCARTY: Thank you, Your Honor.
13:39:36 Q. Dr. Nichols, you also indicated that abortion providers
13:39:42 should not be necessarily using potassium chloride, or KCl, as
13:39:48 counsel referred to it, correct?
13:39:51 A. Well, it was specific to current abortion providers, given
13:39:59 the setting in an outpatient setting without the prior training

13:40:05 and experience of performing KCl injections. No. I don't
13:40:10 believe they should be doing that without experience and
13:40:13 training.
13:40:13 Q. But, if they had that experience and training, you would
13:40:18 not believe that's a violation of the standard of care?
13:40:20 A. Well, if someone has had appropriate training and
13:40:23 experience to safely provide the procedure, then that would be
13:40:30 reasonable and within the standard of care.
13:40:32 Q. And, again, just to make it clear, as we discussed
13:40:42 earlier -- and I don't want this to be lost -- if it is an
13:40:46 intrafetal injection of digoxin versus an intrafetal injection
13:40:52 of potassium chloride -- not intracardiac, but intrafetal --
13:40:59 there is no difference in the technical challenge in doing so,
13:41:02 correct?
13:41:02 A. I agree.
13:41:03 MR. MCCARTY: Thank you, Your Honor.
13:41:04 THE COURT: Ms. Crepps?
13:41:06 MS. CREPPS: Nothing further, Your Honor.
13:41:09 THE COURT: You may step down. You may call your
13:41:15 next witness.
13:41:33 MS. DUANE: Your Honor, Molly Duane for the
13:41:35 plaintiffs. Plaintiffs would like to call Bhavik Kumar to the
13:41:38 stand, so we're going to go get him.
13:41:41 THE COURT: Pardon me?
13:41:43 MS. DUANE: We'd like to call Bhavik Kumar to the

stand, so we're going to go get him.

BHAVIK KUMAR, M.D., M.P.H.,

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MS. DUANE:

Q. Good afternoon, Dr. Kumar.

A. Hello.

Q. Would you please state your full name for the record.

A. Bhavik Kumar.

Q. And what's your profession?

A. I'm a family medicine physician.

Q. Where do you currently work?

A. I currently work at Whole Woman's Health in Texas.

Q. And what's your position at Whole Woman's Health?

A. I'm the medical director for the four clinics in the state, and I also provide abortion care and other services at our Austin location.

Q. And how long have you held that position?

A. So I've been working at Whole Woman's Health for about two and a half years now, and I've been the medical director for a little bit over one year.

Q. Okay. And then, just for the record, can you spell your name for the court reporter.

A. Sure. It's Bhavik, B-h-a-v-i-k, and last name Kumar, K-u-m-a-r.

13:43:56 Q. Thank you. What are your responsibilities as a medical
13:44:01 director of Whole Woman's Health in Texas?
13:44:04 A. So some of the responsibilities of medical director
13:44:07 include supervision of medical care at our clinics. I'm also
13:44:10 responsible for reviewing various logs, such as narcotic logs
13:44:14 or complication logs. I'm in charge of taking after call -- or
13:44:19 after-hours calls as well as supervising nursing staff and
13:44:23 other staff at our clinics and reviewing policies and
13:44:26 procedures.
13:44:27 Q. I want to ask you about your educational background.
13:44:33 Let's start with college. Where did you attend college?
13:44:35 A. I went to college at Southwestern University in
13:44:39 Georgetown, Texas.
13:44:40 Q. And what was your major?
13:44:41 A. I was a chemistry major and a biology minor.
13:44:45 Q. And where did you attend medical school?
13:44:47 A. For medical school I went to Texas Tech, so I did two
13:44:50 years in Lubbock and then two years in El Paso.
13:44:52 Q. Did you complete a residency?
13:44:54 A. Yes.
13:44:55 Q. Where?
13:44:56 A. I went to Montefiore Medical Center, which is in the Bronx
13:45:02 in New York.
13:45:03 Q. What was your specialty in residency?
13:45:05 A. Family medicine.

13:45:07 Q. When did you complete that residency?
13:45:09 A. Residency I finished in 2013.
13:45:12 Q. When did you first learn to perform abortions?
13:45:16 A. Well, my first exposure to abortion care was probably in
13:45:20 medical school when I was doing an externship. And then
13:45:23 throughout residency and fellowship was when I learned how to
13:45:27 perform abortion care.
13:45:28 Q. Did you complete a fellowship after residency?
13:45:31 A. Yes. The fellowship was in family planning at
13:45:34 Albert Einstein, also in the Bronx in New York.
13:45:38 Q. And when did you complete that fellowship?
13:45:40 A. That was in 2015.
13:45:42 Q. Are you board certified?
13:45:43 A. Yes.
13:45:44 Q. In what specialty?
13:45:45 A. In family medicine.
13:45:46 Q. Can you describe what you mean by "family medicine."
13:45:50 A. Sure. So family medicine doctors are sometimes referred
13:45:54 to as general practice doctors. So I the see anyone from
13:45:58 newborns to providing geriatric care for men, women. We do a
13:46:02 lot of hospital care, inpatient care, as well as outpatient
13:46:05 care. So there's a variety of things we can do as family
13:46:08 medicine doctors.
13:46:09 Q. What type of training is involved in family medicine?
13:46:13 A. So our residency for three years involves a number of

different rotations. A lot of it tends to be inpatient care, which is in the hospital, as well as outpatient care. We're exposed to obstetrics, gynecology, pediatrics, as well as some specialized care. So there's a large variety of different things that family medicine doctors typically rotate through during residency.

Q. Can you describe the scope of your current medical practice?

A. Sure. So in my current position at Whole Woman's Health, I am mostly providing abortion care. Some of the care that I provide now also includes contraceptive care and sometimes some other smaller things, like blood pressure or hypertension for folks. But the majority of it is related to family planning.

Q. Do you provide medical abortions?

A. Yes.

Q. Do you provide surgical abortions?

A. Yes.

Q. And up to what gestational age do you provide abortions?

A. At our clinics in Texas, we provide care up to 17 weeks and 6 days by LMP.

Q. Do you provide D&E abortion procedures?

A. Yes.

Q. And is that a regular part of your practice?

A. Yes.

Q. Do you train other physicians in the provision of abortion

13:47:24 care?
13:47:24 A. Yes.
13:47:25 Q. Can you describe how that training proceeds?
13:47:28 A. Sure. So the training process depends on the person's
13:47:33 goals -- why they're coming to us or coming to us for training
13:47:39 and what their current skill level is. And so then, based on
13:47:42 that, we would establish how we can get them from where they're
13:47:46 at with their skills to where they want to be. And that
13:47:48 process can be variable, depending on the person that's
13:47:51 training with me.
13:47:52 Q. Do you teach other physicians to do D&E procedures?
13:47:55 A. Yes.
13:47:56 Q. And what does that process look like, typically?
13:47:58 A. It's similar to what I mentioned before, where it sort of
13:48:01 depends on what their skills are to start off with and how much
13:48:05 progress they need to make to get to where they want to be with
13:48:09 their skills.
13:48:09 Q. In terms of your medical practice, how do you stay up to
13:48:13 date on changes in the medical field?
13:48:15 A. So a number of different things. I do go to conferences
13:48:19 usually twice a year, which involves a number of different
13:48:24 didactics, lectures, poster presentations. I'm also signed on
13:48:27 to a couple of different list servers which will blast updates
13:48:30 to medical practice or new evidence -- sometimes studies,
13:48:33 sometimes sort of guidelines that summarize some of the

information.

There's also apps that are on my phone. Sometimes if I don't -- if I have some time, I'll look at the apps and go through some of the more current things that are coming up. And then journals.

Q. So do you review medical literature as part of your medical practice in providing abortion care?

A. Yes.

Q. At which -- at which of Whole Woman's Health's clinics are you currently providing abortions?

A. So mostly right now I'm working in Austin, but recently I was in Fort Worth. Earlier this year I was in San Antonio. And so it just depends, but right now mostly in Austin.

Q. For how long have you been providing abortions in Texas?

A. In Texas it's been about two and a half years now.

Q. And approximately how many abortions have you provided over your career?

A. So I don't know an exact number. If I had to estimate total, I would say somewhere between 3- and 4,000.

Q. How many of those procedures were second-trimester abortions?

A. Again, I don't know an exact number. But, if I had to estimate, I would say maybe somewhere between 3- and 500.

Q. Okay. Can you turn to Plaintiffs' Exhibit 9 in the binder in front of you.

13:50:03 A. (Complies)
13:50:03 Q. Do you recognize this document?
13:50:04 A. Yes.
13:50:05 Q. And what is this?
13:50:06 A. It looks like my CV.
13:50:09 Q. And is it up to date?
13:50:12 A. Yes.
13:50:14 Q. Is it an accurate summary of your education and
13:50:16 professional history?
13:50:18 A. Yes.
13:50:20 MS. DUANE: Your Honor, at this time Plaintiffs move
13:50:22 that Dr. Kumar's CV be entered into evidence as Plaintiffs'
13:50:25 Exhibit 9.
13:50:27 MS. ARDOLINO: I would lodge the same objection as
13:50:29 Mr. McCarty, that it's hearsay.
13:50:31 THE COURT: And I will lodge the same ruling. I
13:50:33 think it's a summary of his qualifications and what he's
13:50:37 testified to, and so the objection is overruled and the
13:50:42 exhibit -- what number was that again?
13:50:45 MS. DUANE: Plaintiffs' Exhibit 9, Your Honor.
13:50:47 THE COURT: Plaintiffs' Exhibit 9 is admitted.
13:50:51 MS. DUANE: Thank you. And, Your Honor, at this time
13:50:53 Plaintiffs tender Dr. Kumar as an expert in the provision of
13:50:57 abortion care in Texas.
13:50:58 MS. ARDOLINO: I object to the extent that he's being

offered to testify about the provision of abortions greater than 17.6 weeks LMP.

MS. DUANE: Well, Your Honor, we've established Dr. Kumar's training and experience and knowledge on topics of abortion. And, so to the extent that his knowledge of procedures beyond where he currently practices is relevant to his experience and education, we would seek to introduce that evidence.

THE COURT: I will allow him to testify as an expert on abortion in Texas. I think the objection primarily goes to the weight that should be given his testimony, and you will have complete examination on him and can explore any weaknesses in his background that you think are appropriate.

MS. DUANE: Thank you, Your Honor.

Q. Dr. Kumar, how many clinics does Whole Woman's Health currently operate in Texas?

A. We have four clinics.

Q. And where are they?

A. Fort Worth, San Antonio, Austin, and McAllen.

Q. And what's the gestational age limit for those clinics?

A. For all four clinics, it's the same. It's 17 weeks and 6 days by LMP.

Q. And why does Whole Woman's Health not provide abortions over 17.6 LMP?

A. The law in Texas is that, starting at 18 weeks, abortions

13:52:19 have to be performed in an ambulatory surgical center, or an
13:52:23 ASC. And the four clinics that we currently have in Texas are
13:52:27 not ASCs.
13:52:28 Q. Dr. Kumar, let's talk in more detail about your provision
13:52:31 of second-trimester abortion care in Texas. What methods of
13:52:35 abortions do you use in the second trimester?
13:52:37 A. It's mostly suction aspiration and sometimes with forceps.
13:52:42 Q. What's your definition of "suction aspiration"?
13:52:45 A. So suction aspiration procedure is something that involves
13:52:49 suction or aspiration in order to remove the contents of the
13:52:54 uterus and evacuate the uterus.
13:52:56 Q. And you said that you sometimes use forceps?
13:52:59 A. That's correct.
13:53:00 Q. Would that be a D&E procedure?
13:53:03 A. Yeah. I would define a D&E procedure as something in the
13:53:06 second trimester, and sometimes it involves forceps.
13:53:09 Q. At what gestational age do you begin performing D&E
13:53:15 procedures using forceps or other similar instruments?
13:53:16 A. I've used forceps as early as 10 weeks, but I commonly
13:53:20 prepare for the use of forceps around 15 1/2 weeks.
13:53:25 Q. Can you walk me through a typical procedure performed at
13:53:28 15 weeks, starting with the patient's first trip to the clinic.
13:53:33 A. Sure. So a patient like that would typically find out
13:53:38 that they're pregnant, and they can't be. They would decide
13:53:41 that an abortion is the best thing for them. They would

13:53:44 research where to go and find our clinic and make an
13:53:46 appointment. That first appointment can be as soon as the next
13:53:50 day, or it could be several weeks out, depending on the
13:53:53 availability of appointments.
13:53:55 Once that person comes to the clinic, they would be
13:53:58 greeted, checked into the clinic, they would start their
13:54:01 paperwork, which would involve listing their medical history,
13:54:06 going through some of the consent forms, and so forth. The
13:54:09 first step usually is the mandated ultrasound, which I would
13:54:13 have to perform or, if it wasn't me -- if it wasn't the
13:54:16 physician, it would be a certified sonographer.
13:54:20 Once the ultrasound's completed, we would have to
13:54:23 describe the findings of the ultrasound, which, again, by state
13:54:26 guidelines, would include a description of the size of the
13:54:28 pregnancy, presence of extremities, internal organs, presence
13:54:32 of fetal heart tones or cardiac motion.
13:54:35 Once that's over, I'm required to read a script,
13:54:37 which is the state-mandated information that contains medically
13:54:41 inaccurate information, to the patient. And then we would
13:54:44 spend some time answering any questions that they have or
13:54:46 concerns they have about the abortion process.
13:54:49 Typically on the first day they would also have their
13:54:52 vital signs checked, blood pressure, heart rate, so forth, and
13:54:55 have blood drawn for their hemoglobin level and also their RH
13:54:59 factor. The patient would also meet with a counselor, which is

done on a one-on-one setting in a private room, where they can address any emotional concerns that they may have, go over the consent forms, answer any questions that may have come up that they didn't remember earlier.

And then after that process they would meet with the intake person, and during that time they would schedule their next appointment and go over any financial things that need to be addressed.

Q. And when would the patient's next appointment typically occur?

A. So for some folks it can be -- because they're required to all wait 24 hours after I finish reading the script and do the ultrasound, it could be as soon as the next day or it could be several weeks out, depending on the number of logistical burdens that the patient is facing.

Q. What happens at the patient's second trip to the clinic?

A. So when the patient comes back for their second trip, which, again, can be the next day or several weeks out, they would check in again to the front. They would be called to the back to have their vital signs assessed. They would be given preoperative medications, which would include ibuprofen for discomfort, some sort of nausea medicine. Typically we use promethazine. And they would be given a dose of antibiotics. For a procedure at 15 weeks, I also use cytotec or misoprostol for cervical prep. So they would be given that at the same

13:56:18 time, and my dose is 400 micrograms. And the patient would sit
13:56:22 with that medicine for at least two hours, maybe more,
13:56:24 depending on their medical history.
13:56:26 Q. Can I ask, when you say "cervical prep," is that another
13:56:30 way of describing dilation?
13:56:31 A. Yes. So preparing the cervix for the procedure.
13:56:34 Q. Okay. And how long does the dilation process take, again,
13:56:39 starting at around 15 weeks?
13:56:41 A. So the administration of the misoprostol is technically
13:56:45 the start of the dilation process. So for some patients that
13:56:47 can be two hours; for some it can be three or a little bit
13:56:49 more. And then there's also another dilation process during
13:56:52 the procedure.
13:56:53 Q. In your current practice, do you ever use a two-day
13:56:56 dilation process with laminaria?
13:56:58 A. For the care that I provide now, I don't.
13:57:01 Q. And what is your understanding of how a physician uses
13:57:07 laminaria?
13:57:08 A. So laminaria can be used in order to provide more dilation
13:57:13 of the cervix. However, because it can take several hours,
13:57:15 usually they're placed on one day, and then the patient would
13:57:18 come back the following day in order for their procedure to be
13:57:23 completed.
13:57:24 Q. And why don't you use two-day dilation for your current
13:57:28 patients?

13:57:28 A. Currently I don't use two-day dilation.
13:57:30 Q. Yeah. Sorry. Why?
13:57:30 A. Well, most patients prefer to have their procedure done on
13:57:34 the same day. It's more convenient for them, the cost is
13:57:35 reduced, and they're able to have the procedure completed
13:57:37 without having to make a third trip back to the clinic. And it
13:57:40 also reduces the medical risks that can happen if they were to
13:57:43 leave the clinic with lams placed. And, ultimately, it's not
13:57:46 necessary for me to complete the procedure.
13:57:48 Q. Have you ever used two-day dilation in your career?
13:57:56 A. No.
13:57:56 Q. So once a patient is fully dilated, can you walk me
13:57:58 through how you complete the evacuation procedure, again, at
13:58:02 15 weeks.
13:58:03 A. Sure. So once they've been sitting with the misoprostol
13:58:07 for enough time, the procedure first starts with the patient
13:58:09 being placed on the table. We would start with the speculum,
13:58:14 which would hold the vagina open. We use an antiseptic
13:58:19 solution to help prepare the area and decrease their risk of
13:58:23 any infection. We use an instrument called a tenaculum that
13:58:23 helps stabilize the cervix, and then we administer a
13:58:27 paracervical block. I use 1 percent lidocaine which is placed
13:58:29 at specific spots around the cervix and helps decrease some of
13:58:32 the sensation from the uterine nerves towards the end of the
13:58:35 procedure.

13:58:35 The next part is the actual dilation part, and I use
13:58:39 pratt dilators which are tapered dilators that gently stretch
13:58:42 the cervix to how far I need to go. For a 15-week procedure,
13:58:48 it would be up to a 45 pratt dilator.
13:58:50 The next step depends on if the amniotic fluid has
13:58:54 already emptied or not. If it had not, I would use suction to
13:58:57 start with to evacuate the amniotic fluid. If it had already
13:59:01 emptied, I might start with forceps or I might start with
13:59:05 suction. It depends on the how I feel like the procedure could
13:59:07 be completed the quickest.
13:59:09 Q. And how does this procedure vary for gestational issues
13:59:16 above 15 weeks?
13:59:17 A. So, in my experience, the further along somebody is in the
13:59:19 pregnancy, especially after 15 or so weeks, I'm more likely to
13:59:22 use forceps just because suction alone is often not enough to
13:59:27 complete the procedure.
13:59:27 Q. And what's the earliest that you might need forceps to
13:59:30 complete the procedure?
13:59:31 A. So, in my experience, the earliest I've had to use them is
13:59:35 10 weeks. But I typically prepare around 14 and 15 weeks to
13:59:38 maybe use them. But that's not something I would know until
13:59:42 I'm in the procedure.
13:59:43 Q. So, before beginning the procedure, can you know
13:59:46 beforehand whether or not you'll need forceps to complete the
13:59:49 procedure?

13:59:49 A. I would not. And all of our surgical trays at least have
13:59:52 ring forceps on them. And sometimes for the higher gestations,
13:59:57 we have other forceps in the room available if I would need
13:59:59 them.
13:59:59 Q. Dr. Kumar, let's talk a little bit about the patients that
14:00:02 you treat at Whole Woman's Health. Can you tell me, generally
14:00:06 speaking, who your patients are?
14:00:07 A. Well, my patients vary. They can be as young as in their
14:00:13 early teens to in their early 50s. They can be various races,
14:00:20 ethnicities. Most tend to have children already. Some don't.
14:00:22 Many are working. Some have multiple jobs. So there's not
14:00:27 necessarily one specific type of patient that I see.
14:00:30 Q. Where do your patients come from?
14:00:32 A. So right now at the Austin clinic, most are either in the
14:00:37 Austin area or close by. But it depends on which clinic I'm
14:00:42 working at where the patients tend to come from. But usually
14:00:45 close to the clinic. Sometimes not, though.
14:00:47 Q. Do you ever work at the McAllen clinic?
14:00:49 A. I've never provided care there, but I am the medical
14:00:52 director and have visited in that capacity.
14:00:54 Q. In your capacity as medical director, do you have a sense
14:00:58 from about where patients travel from to get to the McAllen
14:01:01 clinic?
14:01:02 A. Yeah. So for McAllen it tends to be throughout all of
14:01:05 South Texas, which we refer to as the Rio Grande Valley.

14:01:08 Sometimes a little bit north of there, but mostly from the
14:01:12 Valley.
14:01:12 Q. Do you ever treat survivors of sexual assault or intimate
14:01:17 partner violence?
14:01:18 A. Yes.
14:01:18 Q. And, generally speaking, what brings women to Whole
14:01:22 Woman's Health seeking abortion care?
14:01:24 MS. ARDOLINO: Object that that calls for
14:01:25 speculation, and she hasn't laid a proper foundation for his
14:01:29 ability to testify as to why his patients go to Whole Woman's
14:01:33 Health.
14:01:34 THE COURT: Ask a few predicate questions. Then he
14:01:36 can testify from his own personal observations also.
14:01:40 Q. (BY MS. DUANE) What makes Whole Woman's health as an
14:01:43 abortion provider unique, in your opinion?
14:01:45 A. From what I understand, what we offer and also what
14:01:47 patients tell us when they come in -- tell me specifically when
14:01:50 they come in, is that they --
14:01:53 MS. ARDOLINO: Object that his response is calling
14:01:56 for hearsay.
14:01:57 THE COURT: Sustained.
14:02:02 Q. (BY MS. DUANE) In your observation as a physician, why do
14:02:07 women choose Whole Woman's Health as their medical provider?
14:02:12 MS. ARDOLINO: Object. Calls for speculation.
14:02:13 THE COURT: Overruled.

14:02:17 A. So based on what some patients tell me, a lot of folks
14:02:22 choose our clinics because of the type --
14:02:25 MS. ARDOLINO: Object. Again, calls for hearsay.
14:02:27 THE COURT: That's sustained. Don't testify as to
14:02:30 what someone else told you.
14:02:31 Q. (BY MS. DUANE) If you could just give me, Dr. Kumar, your
14:02:34 personal observations.
14:02:36 A. Sure. From what I see, the care that we provide at our
14:02:39 clinic is what we refer to as holistic care, where we're
14:02:42 treating not just the patient, but also their emotional health
14:02:45 as well as anything else that they may want to talk about in
14:02:48 the clinic.
14:02:49 I think the care that we offer includes an approach
14:02:53 where we're not just providing a procedure, but it's treating
14:02:57 the whole patient, whether that's providing tea or a warm
14:02:59 blanket for them after the procedure and just making the
14:03:02 experience more comfortable for them. And that tends to be
14:03:06 liked by a lot of folks.
14:03:08 Q. Do any of your patients have difficulty accessing the
14:03:11 abortion care that they seek?
14:03:12 A. Yes. It's common for me to have conversations with folks
14:03:16 about --
14:03:18 MS. ARDOLINO: Object. Again, hearsay and also
14:03:21 speculation.
14:03:24 THE COURT: Overruled as to speculation. But, again,

don't testify as to what you've heard from somebody else. Testify from your personal observation.

A. So a lot of times my patients have a hard time getting back to the clinic because there is a second visit that's required. It can be for different reasons. It can be trying to arrange child care, time off of work. The most common reason tends to be financial, where folks are waiting for several weeks to save up money.

MS. ARDOLINO: Again, I'm going to object that the proper predicate hasn't been laid for this witness's testimony.

THE COURT: It's overruled. He works there. He observes things. He sees things. I think it goes to the weight, not the admissibility. I'll hear the testimony. The objection is overruled.

A. So the most common reason is financial, because folks are waiting to save up certain amounts of money as they're getting their paychecks every two weeks. And that's usually the most common thing that tends to delay people in accessing care in Texas.

Q. Dr. Kumar, what motivates you to provide abortion services to women in Texas?

A. So I grew up in Texas, and I got involved with Medical Students for Choice when I was in medical school. And growing up hearing stories from friends and family members about their experiences trying to access family planning or reproductive

health care in Texas was very different from what I would hear from other family members and friends that were outside of Texas, places like California and New York, where access seemed to be easier. And I felt an obligation to get trained and come back to Texas to provide that type of health care just because folks here deserve the same kind of health care that they would get anywhere else.

Q. Dr. Kumar, I want to talk specifically about your impressions of your patients that seek second-trimester abortion care. Why do, in your observation, patients seek abortion care in the second trimester?

MS. ARDOLINO: Objection to the extent that it calls for hearsay and also calls for speculation.

THE COURT: I'm going to allow him to testify. He's an expert. He's been qualified. He can state why he believes people seek abortions from his clinic.

A. So, from personal experience as well as studies that I've read, the reason why abortion care is sometimes delayed into the second trimester is a number of logistical issues. Folks tend to want to have their procedure done earlier. Sometimes it can be getting to the clinic. Sometimes it could be arranging child care, arranging time off of work, being able to find somebody to take care of their kids that they may already have. And sometimes that can push folks further into pregnancy.

I also mentioned how there's the required 24-hour waiting period. So a lot of folks sometimes aren't able to get back for the second visit within a timely fashion. It may not be the next day that they come back. It may be several weeks later that they come back. And, again, it's usually financial, when they're having to wait every two weeks to take a certain amount out of their paychecks in order to save up enough money.

Unfortunately, what that means is, as they're getting further along in pregnancy, the procedure tends to go up in cost. And so that just adds to the burden that they're facing.

Q. When in pregnancy are fetal anomalies typically diagnosed?

A. That can vary. Usually the first time when somebody is continuing a pregnancy, a genetic test is done around 12 to 14 weeks. That doesn't diagnose all fetal anomalies. The most common time when folks have an anatomy scan is somewhere between 18 and 22 weeks. So it's a little bit further along in pregnancy. And, again, it doesn't capture all anomalies, but it can capture more.

Q. In your observation, do women ever seek abortion in the second trimester because of such diagnoses?

A. Yes.

Q. In your observation as a physician, are there certain groups of women who face especially severe burdens to access to care in Texas?

A. Yes. So, in my experience and also based on studies, we

find that women of color, low-income women, and also young women face these burdens on a more concentrated level. And that's due to some of the factors that I mentioned earlier.

Q. And what proportion of your patients experience burdens to access to abortion care, would you say?

A. In Texas, because of the required 24-hour waiting period and state-mandated script, all of my patients face burdens in accessing care.

Q. Dr. Kumar, you spoke earlier in your testimony about the informed consent process in Texas. Can you please describe the informed consent process requirements.

A. Sure. So the informed consent in general is a time when we discuss with the patients what their risk and benefits are with a certain procedure. For this -- for an abortion in Texas, that also includes having us do the ultrasound that I mentioned earlier, the state-mandated script, and then we have some clinic-specific forms that review that the patient understands what we're doing, that we're performing an abortion, the risks, the benefits, the alternatives. And they have to read through that, initial that they understand that, and we also have a time to have a conversation about any questions that they may have during that time.

Q. So, in addition to the state-mandated counseling, do you also discuss the risks of the procedure with the patients?

A. Yes. The risks and the benefits are reviewed with all

14:08:37 patients.
14:08:38 Q. And you said that Texas has a 24-hour waiting period law.
14:08:42 Do you know what proportion of your patients must obtain that
14:08:47 state-mandated informed consent counseling 24 hours later in
14:08:52 person?
14:08:53 A. So all patients would have to receive the state-mandated
14:08:57 information. Most will have to wait 24 hours after. Texas
14:09:00 does have a law where, if you live 100 miles or more away from
14:09:04 any abortion clinic, you could have that state-mandated
14:09:08 information read on the phone at least 24 hours before they
14:09:10 arrive to the clinic. And then, once they arrive to the
14:09:12 clinic, they would have an ultrasound and then have to wait two
14:09:14 hours after that ultrasound was done.
14:09:16 Q. What proportion of your patients fall into that category
14:09:20 of living 100 miles or more away?
14:09:22 A. So it depends on which clinic I'm working at. I think for
14:09:25 each clinic it's a little bit different. I would say in Austin
14:09:29 it's maybe -- again, I'm ballparking -- but maybe 5 percent.
14:09:36 Whereas in, say, Fort Worth where a lot of folks are coming
14:09:40 from West Texas, it can be 10 to 20 percent.
14:09:42 Q. Can you turn to patient -- I'm sorry -- Plaintiffs'
14:09:45 Exhibit 157. I believe it's in the third binder.
14:09:59 A. Sure.
14:10:23 Q. Dr. Kumar, do you recognize this form?
14:10:26 A. Yes.

14:10:26 Q. And what's the title of this form?
14:10:28 A. This is the consent for one-day D&E procedure.
14:10:31 Q. Do you use this form for all of your patients who receive
14:10:34 a D&E?
14:10:35 A. Yes.
14:10:36 Q. And what's the purpose of this form?
14:10:39 A. This is the informed consent form for anybody that would
14:10:42 be having a D&E procedure that reviews the risks and the
14:10:45 benefits of what might be involved in that process.
14:10:51 MS. DUANE: Your Honor, Plaintiffs move that Whole
14:10:53 Woman's Health's D&E consent form for one-day procedures be
14:10:56 entered into evidence as Plaintiffs' Exhibit 157. I believe
14:11:00 it's also Defendants' Exhibit 49.
14:11:02 MS. ARDOLINO: I believe that we already agreed to
14:11:05 pre-admit those exhibits, so we don't have any objection.
14:11:10 MS. DUANE: Was it on the list?
14:11:11 THE COURT: Well, 157 has not been previously
14:11:14 admitted, but Plaintiffs' Exhibit 157 is admitted at this time.
14:11:27 MS. DUANE: Thank you, Your Honor.
14:11:28 Q. Dr. Kumar, let's turn to methods of fetal demise. Do you
14:11:32 ever seek to cause fetal demise before performing a D&E
14:11:35 procedure?
14:11:36 A. No.
14:11:36 Q. Is digoxin used at any of Whole Woman's Health's four
14:11:40 facilities in Texas?

14:11:41 A. No.
14:11:42 Q. Is KCl used at any of Whole Woman's Health's four
14:11:46 facilities in Texas?
14:11:47 A. No.
14:11:48 Q. Were you trained to do amniocentesis?
14:11:52 A. I was not.
14:11:52 Q. Is amniocentesis training required for board certification
14:11:59 in family medicine?
14:12:00 A. It is not.
14:12:05 Q. Dr. Kumar, have you read any of the literature about fetal
14:12:08 demise techniques?
14:12:10 A. I have read some literature about fetal demise, yes.
14:12:13 Q. And when did you do that reading, approximately?
14:12:16 A. I've been exposed to some of the techniques during
14:12:19 fellowship and training. But mostly once this law was coming
14:12:22 into place, I started doing some research on my own about what
14:12:25 it could involve.
14:12:26 Q. Do you remember approximately when you did that research?
14:12:30 A. Within the last 6 months or less.
14:12:32 Q. And why did you do that research?
14:12:35 A. Again, as the law was being introduced, I was concerned
14:12:38 that it could become something that I might have to deal with.
14:12:42 So I wanted to research what that could involve, what things
14:12:46 I -- could be options for patients of mine. And so I began
14:12:50 doing the research so I could be more knowledgeable about it in

case I had to comply.
Q. Dr. Kumar, have you ever used digoxin to cause fetal demise?
A. No.
Q. Were you trained to give injections of digoxin?
A. No.
Q. And, based on your knowledge of the literature and your knowledge of the medical practice around abortion, what's the earliest gestational age that physicians use digoxin?
MS. ARDOLINO: I'm going to object that Mr. Kumar is not qualified to testify regarding the use of digoxin as a fetal demise technique.
MS. DUANE: Dr. Kumar.
THE COURT: Well, if he knows, he can answer the question. I thought it was a direct question, so the objection is overruled.
Q. (BY MS. DUANE) Would you like me to repeat the question?
A. Please.
Q. What's the earliest gestational age that physicians use digoxin?
A. So I know of some physicians that start at 18 weeks. I've never heard of it being used before that.
Q. Based on your knowledge of the literature and the medical practice of abortion, how long before the evacuation phase of an abortion procedure is digoxin typically administered?

14:14:04 A. So, from what I've heard --
14:14:06 MS. ARDOLINO: Again, I'm going to object that he is
14:14:09 not qualified to talk about digoxin or digoxin procedures.
14:14:14 THE COURT: Overruled.
14:14:17 A. So what I've heard from other physician colleagues of mine
14:14:20 is that usually they will wait until the next day or close to
14:14:24 24 hours before they'll start the actual procedure.
14:14:27 Q. So 24 hours before the evacuation procedure?
14:14:30 A. Yes.
14:14:30 Q. Okay. Do you know how digoxin is administered?
14:14:34 A. From my understanding, it can be done either
14:14:37 transcervically or transabdominally, and the injection is given
14:14:45 either intra-amniotically or intrafetal.
14:14:46 Q. And does an injection of digoxin ever fail to cause fetal
14:14:52 demise?
14:14:53 A. It can, from my understanding of the literature.
14:14:56 MS. ARDOLINO: I'm going to lodge the same objection,
14:14:57 that he's not qualified to testify about digoxin procedures.
14:15:03 THE COURT: Overruled.
14:15:09 Q. (BY MS. DUANE) Based on your knowledge of performing D&E
14:15:11 procedures, do you have concerns about using digoxin to cause
14:15:14 fetal demise prior to 18 weeks for your patients?
14:15:18 A. I do. Because it's not something that I currently do.
14:15:21 I'm able to complete the procedure without that step. I'm also
14:15:25 not aware of any benefit that that would add, but I am aware of

risks that it involves.
Q. And what are those risks?
MS. ARDOLINO: Same objection, Your Honor.
THE COURT: Overruled.
A. So from my reading of the literature, the risks can involve pain or discomfort, infection, bleeding, and, more importantly, it can result in an extramural delivery or a delivery outside of the clinic for the patient.
It also adds more logistical barriers, where the patient would have to come in for a separate visit. There's an additional step that I would have to complete when I know it's not medically necessary and I can do that procedure in one day.
Q. Dr. Kumar, for your patients, would administering digoxin violate the standard of care, in your opinion?
A. For the procedures that I perform, yes.
Q. Have you ever performed a potassium chloride, or KCl, injection to attempt to cause fetal demise before an abortion procedure?
A. No.
Q. And were you trained to give injections of KCl?
A. No.
Q. Have you ever referred a patient to an MFM in Texas?
A. No.
Q. Based on your knowledge of the literature and the practice of abortion, how is KCl typically administered?

14:16:38 A. So, from my understanding of the literature, it's done
14:16:43 transabdominally, and the KCl is usually administered
14:16:47 intracardiac.
14:16:48 Q. And what's your understanding of the medical risks
14:16:50 associated with an injection of KCl?
14:16:53 A. My understanding it's similar to what I described with the
14:16:56 digoxin injection, where it can include pain, discomfort,
14:17:00 infection, bleeding. And I know of one case report where KCl
14:17:05 also caused cardiac arrest in the patient.
14:17:08 Q. Do you know if KCl ever fails to cause fetal demise?
14:17:12 A. I'm not sure.
14:17:14 Q. Dr. Kumar, for your patients, would it violate the
14:17:19 standard of care to administer KCl before an abortion
14:17:23 procedure?
14:17:24 A. Yes.
14:17:25 Q. Have you ever performed umbilical cord transection to
14:17:31 attempt to cause fetal demise?
14:17:32 A. No.
14:17:34 Q. And were you trained to perform umbilical cord transection
14:17:37 to cause fetal demise?
14:17:39 A. No.
14:17:40 Q. When you're performing a D&E procedure, do you ever
14:17:47 visualize the cord during that procedure?
14:17:48 A. So sometimes the cord can present, but it's rare. Maybe a
14:17:53 handful of times that's happened. But I don't specifically

look for the cord.
Q. And if you didn't see the umbilical cord, how would you go about finding it if you needed to?
A. So I would have to use ultrasound guidance so I could actually see where the cord is in the uterus. It would involve instrumentation of the uterus to see if I could find the cord. But it's something that would I be uncomfortable doing.
Q. Would there be risks for the patient associated with looking for the umbilical cord during a D&E procedure?
MS. ARDOLINO: I object that the proper foundation for Dr. Kumar to testify about any of the risks or about the umbilical transection procedure has not been properly laid.
THE COURT: Sustained.
Q. (BY MS. DUANE) Dr. Kumar, you were describing before that you would need to use the ultrasound to locate the umbilical cord. Can you describe that in more detail?
A. Sure. So if I was looking for the cord, I would need to see inside the uterus to be able to locate where the cord was, and that can be done with a transabdominal ultrasound.
Q. Would whether or not the amniotic fluid was still in the uterus impact the ultrasound view of the uterus?
A. Yeah. From my experience, once the amniotic fluid has emptied, it's more difficult to locate particular parts and sometimes it can be difficult to see what you're looking at on the ultrasound.

14:19:29 Q. Would it be more difficult to view the umbilical cord
14:19:32 after the amniotic fluid had drained?
14:19:34 A. Potentially, yes, because it depends on how the fetal lie
14:19:38 is and where the umbilical cord is located. Again, it's not
14:19:42 something that I would typically do, so I would be having to
14:19:45 see if it's even possible in some of these cases.
14:19:49 Q. And if you had to do that during a procedure, would you
14:19:52 have any concerns?
14:19:54 MS. ARDOLINO: I'm going to lodge the same objection,
14:19:55 that he is not -- a foundation hasn't properly been laid for
14:20:01 Dr. Kumar to discuss performing an umbilical transection
14:20:07 procedure.
14:20:07 THE COURT: That's sustained. You're getting a
14:20:09 little far out there in asking him to speculate based on
14:20:12 knowledge he doesn't have at this point.
14:20:13 MS. DUANE: Yes, Your Honor.
14:20:15 Q. Dr. Kumar, let's now turn to methods of abortion that
14:20:18 involve administering medication. Do you ever dispense
14:20:22 medication to your patients to induce an abortion?
14:20:25 A. Yes. For medication abortion.
14:20:28 Q. And what drugs do you dispense?
14:20:30 A. So medication abortions are usually done with mifepristone
14:20:34 as the first medication. And then 24 to 48 hours later, the
14:20:38 patient would use misoprostol. And we usually advise doing
14:20:41 that buccally.

14:20:42 Q. At what gestational age do you administer medication to
14:20:47 cause abortion?
14:20:48 A. Ten weeks, zero days LMP or before.
14:20:51 Q. And do you follow the FDA label when prescribing
14:20:55 mifepristone and misoprostol?
14:20:56 A. Yes.
14:20:57 Q. Do you ever use medication to induce an abortion after
14:21:01 10 weeks?
14:21:02 A. No.
14:21:03 Q. Dr. Kumar, can you define the term "labor induction"?
14:21:09 A. Sure. So labor induction involves inducing labor with
14:21:12 medications. That can either -- typically, I think, from what
14:21:16 I understand, it can be misoprostol and/or pitocin as the main
14:21:22 medications that are used.
14:21:23 Q. And is the process of labor induction sometimes called --
14:21:32 excuse me. Is the process of labor induction sometimes used as
14:21:36 a method of abortion in the second trimester?
14:21:39 A. It can be. Less common in the United States. It's more
14:21:41 common in other countries where D&E is less readily available.
14:21:45 Q. Are you familiar with this method of abortion?
14:21:47 A. It's not something that I perform myself. But, again,
14:21:50 from reading literature and hearing about it at various
14:21:53 conferences, I'm familiar with it.
14:21:55 Q. Has a patient ever asked you to receive labor induction as
14:22:00 a method of abortion?

14:22:02 A. I've never been asked that specifically by a patient, but
14:22:06 I have had patients who were seeking labor induction and then
14:22:10 weren't able to access that and then were referred or found our
14:22:14 clinic.
14:22:14 Q. And why weren't they able to access that care?
14:22:17 A. Various reasons. Most weren't able to find a place to go.
14:22:21 Some had called the recommended doctors from their primary
14:22:25 doc that was following them during the pregnancy and they
14:22:29 weren't able to get in. And they felt like time was passing
14:22:31 and so decided to seek care at our clinic instead.
14:22:34 Q. Do you know if hospitals in Texas do labor inductions?
14:22:38 A. Not to my knowledge.
14:22:39 Q. How long does a labor induction typically take?
14:22:47 A. The labor induction process can take several hours to
14:22:51 several days, depending on the patient and how far along they
14:22:54 are, as well as any complications that may happen.
14:22:57 MS. ARDOLINO: I'm going to lodge an objection that
14:22:59 Dr. Kumar has not -- the proper foundation has not been laid
14:23:03 for Dr. Kumar to testify about induction procedures and the
14:23:07 details of those procedures.
14:23:08 THE COURT: Well, I recognize that Dr. Kumar is
14:23:14 testifying based on his study of literature, and that's the
14:23:17 weight I give it, not his personal experience. So I don't know
14:23:22 how much more of a foundation you're requesting, counsel.
14:23:30 MS. ARDOLINO: That's fine. As long as it's based on

his review of the literature. I would also say that it's not entirely clear based on the questions that have been asked what literature he has or hasn't reviewed on the issue or whether it's reliable. But I can address that in cross.

THE COURT: Well, the Court restates my previous statement. My understanding of Dr. Kumar's testimony is that he is basing it solely on the literature that he has studied, and you may cross-examine him on that. And the weight I'm giving the testimony is the weight I would give to an expert's testimony who has acquired his knowledge by virtue of reading the literature as opposed to field practice.

MS. DUANE: Thank you, Your Honor.

THE COURT: And you-all are really, really kind in thanking me for my rulings, but you don't have to do that. The taxpayers of this country pay me to make those rulings.

MS. DUANE: Fair enough, Your Honor.

Q. Dr. Kumar, to be clear, have you ever performed a labor induction abortion?

A. What do you mean by "perform"?

Q. Have you ever administered the medication for a medication abortion in the second trimester?

A. So in medical school and residency I've been involved with labor induction, again, because it can take several days. I've been on the labor and delivery floor when labor inductions were happening and part of that care. I wasn't necessarily the

14:25:01 attending physician in charge of the whole process, but I have
14:25:04 been exposed to it during my medical education.
14:25:07 Q. And was that in the hospital setting?
14:25:09 A. Yes.
14:25:09 Q. Okay. In your opinion, is induction of labor a realistic
14:25:15 alternative to D&E for the majority of your patients in Texas?
14:25:19 A. No. Like I mentioned, it can take several hours to
14:25:21 several days, which means that it's typically done in the
14:25:23 hospital setting. For the type of care I'm providing, it's
14:25:26 done in the outpatient setting, which is very different. The
14:25:29 risks are different. The amount of cost to the patient would
14:25:33 be different, and it's not a -- it's not an equivalent
14:25:39 alternative.
14:25:40 Q. Dr. Kumar, let's turn to the law at issue in this case.
14:25:43 Can you turn back to the first binder and look at Exhibit 1.
14:25:46 A. Which one?
14:26:01 Q. Exhibit 1. Plaintiffs' Exhibit 1, the first tab. And you
14:26:05 can look at page 5, please. This is SB 8, right, Exhibit 1?
14:26:21 A. Yes.
14:26:22 Q. Have you read the relevant provision of SB 8 that's being
14:26:26 challenged in this case?
14:26:27 A. Yes.
14:26:27 Q. And what is your understanding of what it require?
14:26:29 A. So for this particular part in SB 8, in my understanding,
14:26:32 is that it would require that fetal demise be achieved before I

was able to use forceps during a procedure.
Q. And how do you think that SB 8 would impact your current medical practice?
MS. ARDOLINO: I'm going to object that it calls for speculation.
THE COURT: Sustained.
Q. (BY MS. DUANE) In order to comply with SB 8, is it your understanding that you would need to change your medical practice in any way?
MS. ARDOLINO: Object. Calls for speculation.
THE COURT: Overruled.
A. Yes. Because, like I said, it would require that I cause demise before being able to use forceps during a procedure. And, oftentimes, if not for many -- most procedures, I'm not sure if I would need forceps during the procedure or not, I'd be having to be add an extra step that is something that I don't currently do and don't know of any benefit.
Q. You testified earlier that patients currently make two trips to the clinic, first for counseling and second for their procedure.
A. That's correct.
Q. So after the mandatory counseling visit, if you were administering digoxin, what would the patient's next visit to the clinic be?
MS. ARDOLINO: Object that it calls for speculation.

14:27:50 THE COURT: Restate that question, please.
14:27:51 Q. (BY MS. DUANE) After the mandatory counseling visit, if
14:27:54 you were administering digoxin to your patients, when would the
14:27:58 next -- the patient's next visit to the clinic occur?
14:28:01 THE COURT: That's not speculation. Overruled.
14:28:05 A. So, like I mentioned earlier, because digoxin can take
14:28:09 several hours in order for it to achieve its intended effect,
14:28:14 which is to cause demise, it -- I would think the patient would
14:28:20 have to come in for their first visit, get all of the
14:28:23 state-required things, wait 24 hours. Their digoxin injection
14:28:28 would be the next day, and then we would have them come back
14:28:30 for a third visit in order for them to complete the procedure
14:28:33 in order to increase the likelihood that the digoxin works for
14:28:37 its intended effect in this case.
14:28:38 Q. And during the visit, when the patient came for digoxin,
14:28:42 what would be the steps that you would go through in the
14:28:45 clinic?
14:28:46 MS. ARDOLINO: Object. Calls for speculation. And
14:28:48 also Dr. Kumar -- I lodge the same objection, that he does
14:28:54 not -- she has not laid the proper foundation to testify about
14:28:57 digoxin procedures.
14:29:03 THE COURT: Well, it seems to me that we are talking
14:29:03 now about highly speculative things. It's a what-if kind of
14:29:07 question. And I think you need to draw back in and lay a
14:29:11 predicate on what his knowledge is and what he's relying on to

make these statements.

Q. (BY MS. DUANE) Dr. Kumar, based on your review of the literature and your knowledge of medical practices around abortion, how does a patient typically receive a digoxin injection?

MS. ARDOLINO: I'm going to lodge the same objection.

THE COURT: No. It's overruled.

A. So on the patient side of things, for any kind of procedure that they're having, they would come into the clinic, again, check in. We would of course have to assess their vital signs that day -- blood pressure, pulse, that sort of thing. They would be given some sort of preoperative medication. From talking to colleagues and review of the literature, that typically includes some sort of analgesic, which is ibuprofen, sometimes some sort of nausea medicine to reduce the risk of aspiration during the procedure.

Once that is done, they would have the option of using some higher level of sedation, such as conscious sedation. We would have to prepare for the procedure in a sterile fashion, which would usually involve sterile gloves and sterile instruments, so forth. The medication would be drawn, and the procedure would be completed in a procedure room. After a procedure, typically we watch the patient for a certain amount of time to make sure they're recovering well before they can be discharged from the clinic.

14:30:32 Q. When a person receives sedation, do they typically need a
14:30:36 driver to drive them home?
14:30:37 A. Yes. For the conscious sedation that we use at our
14:30:41 clinics, they have to have somebody drive them home for safety.
14:30:44 Q. What staffing -- based on your knowledge, again, of the
14:30:47 literature and abortion practices, what type of staffing is
14:30:50 necessary to perform an injection of digoxin?
14:30:54 A. So commonly with procedures we would have a medical
14:30:58 assistant or nurse who is administering the medications -- the
14:31:02 preoperative medications. If it was a sterile procedure,
14:31:06 that's done under ultrasound guidance. We would have somebody
14:31:09 doing ultrasound as well as somebody in the room that is
14:31:12 checking the patient's vital signs during the procedure as well
14:31:15 as the physician doing the procedure. There would also likely
14:31:18 be somebody in the aftercare or recovery room who is monitoring
14:31:21 the patient after the procedure is done.
14:31:25 Q. And after the digoxin injection is done, what is the next
14:31:32 step for the patient? When is her next visit to the clinic?
14:31:37 A. So the patient would probably come back the next day, if
14:31:40 they're able to, which would be at least 24 hours after that
14:31:43 injection was given.
14:31:51 Q. And at that visit, if there were still fetal heart tones
14:31:57 present, what would you do?
14:31:58 A. So if demise had not occurred, we would probably try
14:32:02 another digoxin injection, which would mean --

MS. ARDOLINO: Object that the proper foundation has not been laid. Mr. Kumar -- Dr. Kumar is not qualified to talk about the digoxin procedure, and it's speculation as to what it might require him to do in these procedures.

THE COURT: Overruled. It's a fine line between speculation and what is probability that would occur if certain things happen during a procedure. I'm going to allow him to testify.

A. So what I -- if demise had not occurred on that third visit, we would probably try another digoxin injection and then have the patient come back for a fourth visit the following day.

Q. Are there certain groups of women for whom additional trips to the clinic are particularly burdensome?

A. Yes. So, like I mentioned earlier about some of the barriers that push women further into the pregnancy, especially in the second trimester, those barriers from studies are concentrated among women of color, low-income women, and younger women. And so adding an extra potentially one to two visits would be even more burdensome for these groups of women.

Q. How would administering digoxin impact clinic staffing?

A. Well, because it would require an extra visit for the reasons that I mentioned earlier, that's a whole staff that we would have to have for an extra day, which we wouldn't typically do with the way we're practicing now.

14:33:40 Q. Would these changes to staffing lead to a price increase
14:33:43 for abortions over 15 weeks?
14:33:46 A. Yes. I mean, we're adding again a whole extra procedure
14:33:50 where the patient is coming in. If we're giving conscious
14:33:53 sedation, that's an additional cost as well. Sterile supplies
14:33:57 which are more expensive than nonsterile supplies. And so I
14:33:59 don't know exactly how much, but it's extra stuff that we don't
14:34:02 need.
14:34:03 Q. And would you be able to add an additional procedure for
14:34:06 women receiving abortions at 15 weeks or greater without having
14:34:11 to raise the price of the procedure?
14:34:13 A. I don't know how we would be able to do that.
14:34:16 Q. Dr. Kumar, would you recommend digoxin to your patients?
14:34:21 A. No.
14:34:21 Q. Why not?
14:34:22 A. Well, the way I do my procedures currently and the
14:34:25 standard of care is that we don't need to do that. So without
14:34:28 knowing any additional benefit, especially if the benefits
14:34:32 aren't outweighing the risks, it's not something I would
14:34:34 recommend to any of my patients.
14:34:37 Q. So if you were going to obtain informed consent from your
14:34:41 patients for fetal demise, what would you list as the benefits?
14:34:46 A. I think the main benefit is that I would be able to meet
14:34:48 the requirements of the law in order to perform that procedure.
14:34:51 But I don't know of any medical benefits.

14:34:53 Q. And what would you list as the risks?
14:34:56 A. The risks could include bleeding, discomfort or pain, infection. Those are known risks.
14:35:04 Q. Do you have concern for how you would go about obtaining informed consent from your patients for a fetal demise procedure?
14:35:12 A. I do. Based on my review of the literature, there's very little to not much evidence at all about the use of digoxin for fetal demise before 18 weeks. And so that means I don't know exactly how it would work, and we would be gathering information as we go forward. And I would have to have that conversation with my patients.
14:35:32 Q. Is it your opinion that SB 8 will advance the health and safety of women seeking second-trimester abortions in Texas?
14:35:39 A. No, I think --
14:35:40 MS. ARDOLINO: Object to lack of foundation and calls for him to draw a legal conclusion, and he also has not had the proper foundation laid for him to testify as to the effects of requiring fetal demise on procedures that he performs.
14:35:59 THE COURT: Restate your question.
14:36:00 Q. (BY MS. DUANE) Would -- excuse me. Would administering a fetal demise procedure advance the health and safety of your patients?
14:36:11 MS. ARDOLINO: Same objection.
14:36:12 THE COURT: All right. Overruled.

14:36:14 A. It would not.
14:36:15 Q. Why?
14:36:16 A. Well, again, this additional required procedure that I'm
14:36:20 not currently doing has no known benefit, and there are risks
14:36:24 involved. So if I'm adding risks without adding any benefit,
14:36:29 that's not adding to the health and safety of my patients.
14:36:33 MS. DUANE: Thank you. That's all we have for now.
14:36:35 Pass the witness.
14:36:36 THE COURT: Cross-examination?
14:36:57 MS. ARDOLINO: Good afternoon, Dr. Kumar.
14:36:59 THE COURT: Please state your name for the reporter,
14:37:01 please.
14:37:02 MS. ARDOLINO: Thank you. Emily Ardolino on behalf
14:37:03 of Attorney General Ken Paxton.
14:37:11 **CROSS-EXAMINATION**
14:37:11 **BY MS. ARDOLINO:**
14:37:11 Q. Dr. Kumar, you don't purport to be an expert on digoxin
14:37:14 for fetal demise; isn't that right?
14:37:16 A. I don't perform digoxin injections for fetal demise.
14:37:20 Q. But you also don't purport to be an expert on that topic,
14:37:24 do you?
14:37:25 A. I don't consider myself an expert in something that I
14:37:28 don't do.
14:37:29 Q. You've never used digoxin to cause fetal demise; isn't
14:37:32 that correct?

14:37:32 A. I've never used it, but I am familiar with it from the
14:37:36 literature.
14:37:36 Q. And my question was: You've never used it to cause fetal
14:37:40 demise; is that correct?
14:37:41 A. I've never used digoxin for fetal demise.
14:37:44 Q. And you've never been trained to use digoxin for fetal
14:37:49 demise; is that correct?
14:37:49 A. That's correct.
14:37:49 Q. You've never observed a procedure where digoxin was used
14:37:51 to cause fetal demise. Isn't that true?
14:37:54 A. Yes.
14:37:54 Q. And you've never assisted in a procedure where digoxin was
14:37:57 used to cause fetal demise. Isn't that also true?
14:38:00 A. I've never assisted in the part where the digoxin was
14:38:03 administered. But for a procedure that had digoxin previously,
14:38:07 yes.
14:38:07 Q. So that is true, that you've never assisted in a procedure
14:38:10 where digoxin was used to cause fetal demise?
14:38:14 A. What do you mean by "assisted"?
14:38:16 Q. You have never participated in a procedure where digoxin
14:38:24 was administered in order to cause fetal demise; is that
14:38:29 correct?
14:38:29 A. So that's not correct. And what I was saying is there's
14:38:32 procedures I have been involved with that have involved
14:38:35 digoxin. I wasn't part of the digoxin part of it, but I was

14:38:37 involved with the abortion procedure.
14:38:39 Q. Okay. And the abortion provider that you work for, Whole
14:38:48 Woman's Health, used to use digoxin in some of their
14:38:52 procedures; isn't that right?
14:38:54 A. I've never used it in my practice, but I am aware that it
14:38:59 has been used at one of our clinics that is now no longer open.
14:39:03 Q. And you're not familiar with any of the protocols or
14:39:06 standing orders for digoxin use for Whole Woman's Health; isn't
14:39:10 that correct?
14:39:10 A. I did not use the standing orders at that clinic. I
14:39:13 didn't work at that clinic at that time.
14:39:14 Q. And you're not even familiar with them; isn't that right?
14:39:16 A. I've reviewed them during this process, but I'm not very
14:39:20 familiar with them.
14:39:21 Q. Okay. You're not even sure at what point in the D&E
14:39:27 procedure that digoxin injection occurs; isn't that right?
14:39:30 A. Could you restate that?
14:39:32 Q. You're not even sure at what point in the D&E procedure
14:39:35 the digoxin injection occurs; isn't that right?
14:39:38 A. That's not correct.
14:39:39 Q. Okay. Is that not what you told me at your deposition?
14:39:43 A. I've talked to other colleagues that used digoxin, so I'm
14:39:47 familiar with their practice. So I know at what points some of
14:39:50 the colleagues that I've discussed this with typically use it,
14:39:54 if that's what you're asking.

14:39:55 Q. So you've talked to those colleagues since your
14:39:57 deposition, then?
14:40:01 A. I'm not sure if we specifically talked about their
14:40:04 practices after the deposition, but at some point in the past
14:40:07 I've had conversations with colleagues about this.
14:40:09 Q. And you haven't done an exhaustive review of the medical
14:40:12 literature on digoxin, have you?
14:40:14 A. I've reviewed the literature, yes.
14:40:16 Q. Okay. In your deposition you couldn't point to a specific
14:40:19 piece of medical literature that you had read about using
14:40:23 digoxin for fetal demise. Isn't that true?
14:40:26 A. I'm not sure what I said during the deposition.
14:40:33 MS. ARDOLINO: Brian, will you please play 181, 21
14:40:35 through 184, 4.
14:40:38 "Question: Have you reviewed any medical literature
14:40:42 on digoxin?
14:40:44 "Answer: About digoxin as a drug or using it in this
14:40:50 way?
14:40:50 "Question: About using it in this way.
14:40:53 "Answer: Not specifically that I can recall. It may
14:40:56 have been mentioned in some articles here and there, but
14:40:59 nothing specifically on this."
14:41:02 Q. (BY MS. ARDOLINO) Okay. You've never done an
14:41:08 intra-abdominal injection into the uterus; isn't that correct?
14:41:12 A. That's correct.

14:41:12 Q. And you've also never done a transvaginal injection into
14:41:16 the uterus; is that correct?
14:41:19 A. I've never done a transcervical, but a transvaginal for
14:41:25 the paracervical block during the procedure.
14:41:26 Q. Okay. But you don't consider that into the uterus, do
14:41:27 you?
14:41:27 A. It's not in the uterus, no.
14:41:29 Q. Okay. So the answer to my question is, you've never done
14:41:32 a trans-surgical block -- sorry.
14:41:34 You've never done a transvaginal injection into the
14:41:37 uterus; is that correct?
14:41:41 A. So, technically, the paracervical block is around the
14:41:44 cervix, but the uterus is there. So if it enters the uterus,
14:41:48 it can be considered intrauterine. But that's not the goal of
14:41:51 that.
14:41:51 Q. And that's also not what you told me at your deposition
14:41:53 last month, was it?
14:41:54 A. I'm not sure what I said during the deposition.
14:41:57 MS. ARDOLINO: Okay. Brian, will you please play
14:42:00 223, 19 through 23.
14:42:13 "Question: Have you ever done a transvaginal
14:42:16 injection into the uterus?
14:42:21 "Answer: No. I don't consider a paracervical block
14:42:25 into the uterus. But beyond that, no."
14:42:32 Q. (BY MS. ARDOLINO) It's your understanding that some

providers use digoxin for fetal demise during abortion procedures at 18 weeks LMP or more; is that correct?
A. Yes.
Q. But you can't speak to the safety of digoxin for those procedures, correct?
A. I've reviewed some of the literature and noted some of the risks that are mentioned in that.
Q. But you would agree with me that you can't speak to the safety of digoxin for those procedures, correct?
A. No. I would disagree. I think that, as a physician, there are procedures that I don't necessarily do, but I can read the literature and understand these involve risks.
Q. So has your position on whether you can speak to the safety of digoxin for those procedures changed since your deposition last month?
A. Again, I don't remember exactly what I might have said during that time.
MS. ARDOLINO: Brian, can you please play 213, 13 through 19?
"Question: Do you have any reason to -- well, what's your understanding of what the literature says about the safety of digoxin at 8 -- at 18 or more weeks of gestation?
"Answer: I don't think I can speak to that because I'm not providing procedures at 18 or higher."
Q. (BY MS. ARDOLINO) Okay. And you don't even know what the

14:43:44 medical consensus is on digoxin at 18 weeks LMP or more, do
14:43:49 you?
14:43:49 A. What do you mean by "medical consensus"?
14:43:53 Q. You don't know what I mean by "medical consensus"?
14:43:57 A. If you could just specify what you mean by that.
14:44:05 Q. You testified in your deposition that you didn't know what
14:44:09 the medical consensus on digoxin was at 18 weeks LMP or more;
14:44:14 isn't that right?
14:44:15 A. I don't remember.
14:44:17 MS. ARDOLINO: Okay. Brian, can you please play
14:44:19 213, 25 to 214, 4.
14:44:23 "Question: Okay. So you don't know what the medical
14:44:27 consensus is on the -- on the safety of digoxin at 18 or more
14:44:32 weeks gestation?
14:44:38 "Opposing Counsel: Objection.
14:44:38 "Answer: I don't."
14:44:41 Q. (BY MS. ARDOLINO) You also don't know how much the
14:44:45 equipment necessary to perform a digoxin procedure would cost;
14:44:50 isn't that correct?
14:44:51 A. I'm not familiar with the exact pricing of things.
14:44:54 Q. Okay. So, no, you don't know?
14:44:59 A. I know that there would be costs, but I don't know the
14:45:01 exact pricing.
14:45:02 Q. You also don't purport to give an -- you also don't
14:45:11 purport to be an expert on KCl as a method for causing fetal

demise; isn't that correct?
A. Yes.
Q. Okay. And you've never observed anyone do a KCl injection for fetal demise, correct?
A. I have not.
Q. You don't know any physicians who use KCl to cause fetal demise, do you?
A. Not that I recall right now.
Q. You don't even know what gestational ages physicians use KCl for fetal demise; isn't that correct?
A. I don't know those physicians personally. Again, I've seen it in the literature mentioned.
Q. You don't know how much -- how KCl is used to cause fetal demise either, do you?
A. Again, from reading the literature, I know it's administered intracardiac. I'm aware of it. I know some things about it, but I've never done the actual procedure.
Q. But you don't know much about it, do you?
A. I know some things about it.
Q. Okay. In fact, the only thing you claim to know about KCl is that it's an intracardiac injection; isn't that right?
A. That's one of the things.
Q. Okay. But in your deposition that was the only thing you could tell me about KCl, wasn't it?
A. Again, I don't remember if that's what I said.

14:46:23 Q. Sure.
14:46:23 MS. ARDOLINO: Brian, can you play 184, 17 through 23, please.
14:46:27 "Question: What is your understanding about -- about how KCl is used to cause fetal demise?
14:46:29 "Opposing Counsel: Objection, vague.
14:46:36 "Answer: So I don't know much about it. I just know that it's an intracardiac injection."
14:46:40 Q. (BY MS. ARDOLINO) Okay. Dr. Kumar, you are also not purporting to be an expert on umbilical cord transection; isn't that correct?
14:46:41 A. I'm not an expert on umbilical cord transection.
14:46:43 Q. Okay. You've never performed an umbilical transection, correct?
14:46:54 A. Not for the purposes of demise.
14:46:57 Q. Okay. And you've never observed anyone performing an umbilical cord transection, right?
14:47:01 A. Not for the purposes of demise.
14:47:01 Q. And you were never trained to perform an umbilical cord transection, correct?
14:47:04 A. I was not.
14:47:09 Q. And you've never had any discussions about umbilical cord transection with other physicians who do the procedure; isn't that also correct?
14:47:10 A. For umbilical cord transections, specifically, I don't
14:47:12
14:47:16
14:47:18
14:47:20
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14:47:37 think I've ever discussed that with another physician.
14:47:39 Q. You've also never researched the safety or efficacy of
14:47:44 umbilical cord transection, have you?
14:47:47 A. Again, I mentioned the articles I've reviewed, so I'm
14:47:49 aware of it and familiar with it. But I don't know it in great
14:47:52 detail.
14:47:52 Q. Okay. But you admittedly don't know much about umbilical
14:47:55 cord transection at all, do you?
14:47:58 A. I think what I just said before, where I have seen it in
14:48:02 the literature and it's come up, but I don't know it in great
14:48:05 detail.
14:48:05 Q. Okay. And you're also not familiar with any of the risks
14:48:09 of umbilical cord transection, are you?
14:48:11 A. Again, it's been mentioned in some articles, and things
14:48:14 were stated in those articles about risks. But it's not
14:48:17 something that I do and can speak to well.
14:48:19 Q. And when I asked you if you were familiar with those risks
14:48:22 at your deposition last month, that's not the answer you gave
14:48:24 me, was it?
14:48:25 A. I don't remember what I said in the deposition.
14:48:28 MS. ARDOLINO: Brian, can you please play 235, 1
14:48:31 through 4.
14:48:40 "Question: Are you aware of any of the risks, if
14:48:46 there are any, associated with the umbilical cord transection?
14:48:54 "Answer: I'm not familiar with it."

14:48:57 Q. (BY MS. ARDOLINO) Dr. Kumar, you testified about some of
14:49:09 the obstacles that your patients face in obtaining abortions in
14:49:15 Texas, and that's based on your interactions with your
14:49:26 patients; isn't that correct?
14:49:27 A. So I would say it's based on any interactions with
14:49:30 patients and also some research findings.
14:49:33 Q. Okay. I want to talk about the visits that you have with
14:49:36 your patients. So you testified that you visit with patients
14:49:42 on the first day that they come into the clinic for a consult,
14:49:46 correct?
14:49:47 A. Yes.
14:49:48 Q. Okay. And you typically spend about five to ten minutes
14:49:52 in that consult visit; isn't that correct?
14:49:54 A. So, on average, the time for the ultrasound and where I'm
14:49:59 reading the state-mandated information tends to be about five
14:50:03 to ten minutes.
14:50:04 Q. And during that five to ten minutes, you perform an
14:50:07 ultrasound, correct?
14:50:08 A. So if there's a certified sonographer, it may be that
14:50:11 person doing it, or I may have help from a medical assistant.
14:50:13 Q. So during that five to ten minutes, an ultrasound is
14:50:17 performed on the patient, correct?
14:50:18 A. Yes.
14:50:19 Q. And for most patients you explain that ultrasound during
14:50:22 that five to ten minutes, correct?

14:50:23 A. I have to for all patients.
14:50:25 Q. And also during that five to ten minutes, you read the
14:50:28 state-mandated information, correct?
14:50:29 A. Yes.
14:50:30 Q. Okay. And that's a whole page of information that you
14:50:33 have to read in those five to ten minutes, correct?
14:50:36 A. It's a page of information, but I've done it hundreds of
14:50:38 times, and it takes about 30 seconds.
14:50:40 Q. Okay. And then typically the next time you would speak
14:50:47 with a patient is during the actual abortion procedure,
14:50:50 correct?
14:50:50 A. Not always. Sometimes, again, as they go through the
14:50:55 process, there may be a concern from the counselor or the lab
14:50:58 person. So they would alert me, and I would have a
14:51:01 conversation with that person, if needed.
14:51:03 MS. ARDOLINO: I'm going to object that that answer
14:51:04 was nonresponsive, and I'll ask you the question again.
14:51:07 Q. I'm talking about you typical procedure. Typically, the
14:51:10 next time you would speak with a patient is during the actual
14:51:12 abortion procedure, correct?
14:51:13 A. For most patients it tends to be that.
14:51:16 Q. Okay. And that actual abortion procedure, just for
14:51:20 clarification, you're referring to the part where you manually
14:51:24 dilate the cervix and then remove the fetus, correct?
14:51:27 A. I'm sorry. Could you repeat that?

MS. ARDOLINO: Actually, I'll withdraw that question.
Q. And is it fair to say that the abortion procedure portion of the visit typically takes 10 to 20 minutes?
A. So an abortion in the first trimester usually takes about five to eight minutes.
Q. Okay. I'll clarify. For your D&E patients -- for the D&Es that you perform, is it fair to say that that part of the procedure typically takes between 10 to 20 minutes?
A. Yeah. I think that's fair.
Q. Okay. And at that point the patient -- again, a D&E patient -- would have already been given some medications to aid in the dilation, correct?
A. Yes. So typically I use misoprostol for that part.
Q. Okay. And she may also have been given anti-anxiety medications at that point, correct?
A. If that's what the patient opted for, it's possible.
Q. Okay. She may also be under conscious IV sedation during that part of the procedure, correct?
A. So during the procedure, they -- again, if the patient opts for that, yes. But I usually talk to them before.
Q. And conscious IV sedation involves some pretty strong sedatives, correct?
A. Different folks have different responses to it. Some don't feel it too much, and some people are really drowsy. It depends on their response.

14:52:49 Q. Okay. But they are strong enough that they could cause
14:52:50 deep sedation or loss of consciousness, right?
14:52:53 A. I would say loss of consciousness is something I've never
14:52:57 seen with the medications that we use.
14:53:00 Q. But that's what you tell you patients, right?
14:53:02 A. It's one of the possibilities, but I haven't seen it in my
14:53:06 practice.
14:53:06 Q. And for a typical dilation and evacuation procedure, the
14:53:10 surgical portion of the procedure would be the last time you
14:53:15 visit with a patient; isn't that correct?
14:53:17 A. So after the procedure they're in the aftercare room. And
14:53:22 then once they leave the clinic, that will be the last time I
14:53:25 interact with them unless there was a concern that they had.
14:53:27 Q. Okay. And you don't regularly interact with your dilation
14:53:30 and evacuation patients after they leave the clinic; isn't that
14:53:34 correct?
14:53:35 A. Typically, no. Unless they had a concern and called about
14:53:39 something.
14:53:39 Q. Okay. There is a waiting period between when you give the
14:53:51 medication that starts the dilation procedure and when you
14:53:55 finish the procedure; isn't that correct?
14:53:58 A. Are you referring to the administration of the
14:54:01 misoprostol?
14:54:01 Q. I am.
14:54:02 A. Yes.

14:54:04 Q. Okay. And that waiting period -- for the procedures that
14:54:09 you perform, that waiting period can be as much as four hours;
14:54:13 is that correct?
14:54:14 A. Yes. I'd say that's the upper limit.
14:54:16 Q. And you tell your patients before the procedure that the
14:54:19 delay can be as much as four hours, correct?
14:54:22 A. If that's what I'm planning.
14:54:24 Q. All right. And it's possible that it could even take
14:54:27 longer, depending on the patient, correct?
14:54:30 A. Longer than four hours?
14:54:31 Q. Yes.
14:54:32 A. I would say that's rare.
14:54:34 Q. But it's possible, correct?
14:54:36 A. So if at four hours I had attempted the procedure and
14:54:41 wasn't able to complete it, then I would assess. But it's
14:54:45 pretty rare.
14:54:46 Q. Okay. So your answer is, yes, it's possible, correct?
14:54:50 A. Yes.
14:54:51 Q. Okay. And if you use osmotic dilators in the procedure,
14:54:57 that procedure could require dilation happen overnight,
14:55:01 correct?
14:55:01 A. So it depends on what osmotic dilator you're using and how
14:55:05 much time that would need for it to work and, again, how much
14:55:08 dilation you're trying to achieve.
14:55:10 Q. Okay. But it's possible that your patient might need

14:55:12 overnight dilation if you're using osmotic dilators, correct?
14:55:16 A. For the procedures that I've performed it's never
14:55:19 happened, but anything is possible in medicine.
14:55:21 Q. Okay. And you can -- you tell them, your patients, that
14:55:28 it's possible that they might have to come back to the clinic
14:55:31 the following day to complete the procedure, correct?
14:55:35 A. So I have never told a patient that verbally. It's on our
14:55:38 consent forms just in case. But, again, in my two and a half
14:55:41 years here, I've never had to do that.
14:55:45 Q. Okay. But that's something you tell the patients could
14:55:47 possibly happen, correct?
14:55:48 A. I don't verbally tell them that. It's on our consent
14:55:51 forms, though.
14:55:52 Q. But your consent forms tell them that could possibly
14:55:54 happen, correct?
14:55:55 A. That is on the consent forms, yes.
14:55:58 Q. Okay. Dr. Kumar, you have worked with physicians in Texas
14:56:09 who know how to do digoxin injections; isn't that right?
14:56:13 A. Yes.
14:56:13 Q. Okay. You learned to do -- in fact, you learned to do
14:56:17 dilation and evacuation procedures from an abortion provider
14:56:22 who used digoxin, correct?
14:56:23 A. Yes. That's part of their practice.
14:56:25 Q. And that doctor has been referred to in this allegation as
14:56:29 Dr. Alamo Doe, right?

14:56:31 A. Yes.
14:56:31 Q. Dr. Alamo Doe still provides -- to your knowledge,
14:56:35 Dr. Alamo Doe still provides abortions in Texas, correct?
14:56:39 A. I believe so, but I'm not sure.
14:56:42 Q. There are six doctors who currently provide abortions at
14:56:45 Whole Woman's Health, right?
14:56:47 A. I believe we have seven physicians in Texas.
14:56:56 Q. Okay. So there are seven physicians who currently provide
14:56:58 abortions at Whole Woman's Health in Texas, correct?
14:57:01 A. Yes.
14:57:02 Q. Okay. And Jasbir Ahluwalia, he provides abortions at
14:57:08 Whole Woman's Health, correct?
14:57:09 A. Yes.
14:57:09 Q. And Dr. Ahluwalia has used digoxin to cause fetal demise
14:57:14 correct?
14:57:14 A. I'm not sure.
14:57:15 Q. So you've never talked to Dr. Ahluwalia about his use of
14:57:20 digoxin; is that right?
14:57:21 A. I've never had a conversation with him about his previous
14:57:24 use of digoxin.
14:57:25 Q. Okay. Tamer Middleton is also a physician who provides
14:57:29 abortions at Whole Woman's Health; isn't that correct?
14:57:32 A. Yes.
14:57:33 Q. And Dr. Middleton has used digoxin to cause fetal demise
14:57:37 before; isn't that right?

14:57:38 A. I'm not sure.
14:57:39 Q. You don't know?
14:57:40 MS. DUANE: Your Honor, I would like to object to the
14:57:42 use of the names in open court, these physicians.
14:57:46 THE COURT: I didn't hear you.
14:57:48 MS. DUANE: Sorry, Your Honor. I want to object to
14:57:50 the use of the names of the other physicians in open court. As
14:57:54 we were referring to during the pretrial conference, we've
14:57:58 hoped to keep the names of clinic staff and physicians that are
14:58:03 not plaintiffs in this litigation and are not witnesses in this
14:58:06 litigation confidential. And I'm not sure if she's planning on
14:58:10 listing every name of every physician at Whole Woman's Health.
14:58:14 THE COURT: I did grant a motion to that regard.
14:58:17 MS. ARDOLINO: I am not entirely sure how I'm going
14:58:20 to go about questioning the witness about what he knows about
14:58:23 other doctors' ability to perform digoxin procedures. I don't
14:58:28 know if the proper --
14:58:31 THE COURT: What relevance does it have about the
14:58:34 ability of other doctors to perform the procedure? Is not the
14:58:38 question we have before us the procedure, and it's a known
14:58:44 procedure? And at some point I think I'm going to hear
14:58:48 argument about the fact that requiring the additional procedure
14:58:52 does not create an undue burden on a woman's right to an
14:58:57 abortion. So I don't know of any reason a particular doctor's
14:59:03 expertise in that procedure would make any fact more or less

likely to be proved.

MS. ARDOLINO: It's primarily for the purposes of obtaining information from Dr. Kumar so that he can identify the providers. What I can do is, for the -- for the last questions that I had, I can attempt to ask the question without reference to a specific doctor's name and see if I can elicit the testimony that I intended.

THE COURT: Why don't we try it that way. But move along through here, because I'm not hearing anything in this line of questioning that's going to help me make a decision on the issues that are contained in the complaint and the response.

Q. (BY MS. ARDOLINO) Okay. Dr. Kumar, are you aware that there is a physician who currently works for Whole Woman's Health who has -- who has used umbilical cord transection to cause fetal demise?

A. In the past?

Q. At any point.

A. I was made aware of one physician yesterday. But before that, I wasn't aware of that.

Q. Okay. So prior to giving expert -- your purported expert testimony on fetal demise and your -- the ability of your clinic to meet those requirements under SB 8, you had not talked to any of the physicians that -- that were listed or that were referenced about the techniques that they used; isn't

15:00:52 that correct?
15:00:53 A. I haven't had any of those discussion with our physicians.
15:00:57 Q. Okay. I want to talk a little bit about the procedures
15:01:04 that you perform. Whole Woman's Health does not provide
15:01:09 abortion procedures after 17.6 weeks LMP; is that correct?
15:01:14 A. Not in Texas.
15:01:15 Q. And you personally do not provide abortions after
15:01:18 17.6 weeks LMP; is that correct?
15:01:21 A. Yes.
15:01:21 Q. And you've never performed an entire dilation and
15:01:26 evacuation procedure, including the dilation and the evacuation
15:01:29 portion, for a patient above 17.6 weeks LMP; isn't that
15:01:37 correct?
15:01:37 A. Yes. I mean, I've been part of some procedures, but not
15:01:42 the full first-day procedure.
15:01:45 Q. So you've never been involved in the dilation portion of
15:01:48 the -- of a procedure above 17.6 weeks gestation, correct?
15:01:53 A. So when you say dilation process, there are several steps
15:01:56 in the procedure, which include the laminaria the day before
15:02:00 and the second day which include the mechanical dilator. So I
15:02:06 have been part of the dilation process, technically.
15:02:09 Q. Okay. You're not offering any opinions in this case as to
15:02:11 procedures that you do not perform, correct?
15:02:14 A. I have an opinion based on my reading of the literature
15:02:17 and as a physician, but not from personal experience.

15:02:20 Q. Okay. You don't provide abortions in McAllen; is that
15:02:33 correct?
15:02:34 A. I don't provide direct services there, but I do visit the
15:02:37 clinic in my medical director capacity.
15:02:40 Q. Okay. But you don't see patients for abortion services in
15:02:46 McAllen, correct?
15:02:47 A. I don't provide direct services there.
15:02:49 Q. Okay.
15:02:56 MS. ARDOLINO: Brian, can you put up Defendants'
15:03:06 Exhibit 47. Actually, I'm sorry. I wrote the wrong exhibit
15:03:39 number. Can you put up Defendants' Exhibit 87.
15:03:42 MS. DUANE: Your Honor, this is one of the exhibits
15:03:44 that we mentioned during our pretrial conference that --
15:03:51 MS. ARDOLINO: I didn't think it was on the list. I
15:03:53 did check it.
15:03:54 THE COURT: I don't even know which exhibit we're
15:03:57 talking about right now. I just thought I heard Ms. Ardolino
15:04:00 say take that exhibit down and put up a different exhibit.
15:04:03 MS. DUANE: Sorry. I thought I heard a number.
15:04:05 MS. ARDOLINO: You're referencing 87, right?
15:04:08 Defendants' Exhibit 87?
15:04:10 MS. DUANE: Yes.
15:04:10 MS. ARDOLINO: To the extent that it is one of the
15:04:11 listed documents that you were claiming shouldn't be publicly
15:04:18 displayed, for now we can -- I wasn't aware of that. But for

15:04:24 now could we just display it only for the witness and for the
15:04:30 Judge?
15:04:30 THE COURT: And what exhibit number are we now
15:04:32 talking about?
15:04:33 MS. ARDOLINO: Defendants' 87.
15:04:35 MS. DUANE: Your Honor, we also have a redact -- a
15:04:38 version that we have redacted with additional redactions that
15:04:41 we sent to the State.
15:04:42 THE COURT: Why don't you discuss this briefly and
15:04:44 see if you can solve the problem of how we're going to handle
15:04:48 it.
15:04:48 (Discussion between counsel)
15:06:02 THE COURT: Tell me what your proposal is.
15:06:05 MS. ARDOLINO: My proposal is that I just to attempt
15:06:12 to work around it. And if it turns out that that's not
15:06:14 possible ...
15:06:14 MR. MCCARTY: What we propose is we put the
15:06:16 unredacted copy up on the screen for the witness and the Court,
15:06:19 but not for the rest of the courtroom for now. And we will
15:06:23 have to deal with the redactions -- additional redactions that
15:06:28 we got very late last night outside the courtroom.
15:06:31 THE COURT: This is a 24-hour job for you-all.
15:06:36 MR. MCCARTY: Well, it is.
15:06:37 THE COURT: Okay. All right. That's fine. Display
15:06:39 the exhibit in unredacted form to the Court and the witness.

15:06:42 Each of you have it. Then we'll work on redactions, and the
15:06:45 redacted exhibit will become part of the public record in this
15:06:48 case. So you may proceed. But, having said that, it is not in
15:06:57 evidence yet, so do not ask any questions about it until we get
15:07:01 it into evidence.
15:07:02 MS. ARDOLINO: Understood.
15:07:05 Q. Dr. Kumar, are you able to view Defense Exhibit 87?
15:07:12 A. Yes.
15:07:12 Q. Okay. Is that -- that exhibit is an e-mail, correct?
15:07:21 A. Yes. It looks like an e-mail.
15:07:23 Q. That's an e-mail from an individual at prochoicetexas.org
15:07:26 to you, correct?
15:07:28 A. Yes.
15:07:28 Q. And it was sent on April 20th, 2017; is that correct?
15:07:34 A. Yes.
15:07:35 Q. All right. And below that there is an e-mail that was
15:07:40 sent by you to another individual on April 20th, 2017. Do you
15:07:51 see that?
15:07:52 A. It's hard for me to tell if I sent it or if that was sent
15:08:01 by another person.
15:08:01 Q. Okay. So just below it -- just below this e-mail, it
15:08:07 reads April 20th, 2017. Do you see that?
15:08:16 A. I see the date twice on this document, yes.
15:08:18 Q. Okay. And on that same line, it says "B. Kumar," correct?
15:08:29 A. So there's a line towards the top that has that date and

15:08:32 my e-mail address, yes.
15:08:34 Q. Okay. And then there's an e-mail address that you just
15:08:36 identified as your e-mail address, correct?
15:08:39 A. Yes.
15:08:39 Q. And then after it it says the words "Wrote:"; is that
15:08:45 correct?
15:08:45 A. Yes.
15:08:45 Q. Okay. So does it appear that you wrote that e-mail?
15:08:49 A. Yes.
15:08:50 Q. Okay.
15:08:54 MS. ARDOLINO: Your Honor, I would like to move
15:08:55 exhibit -- Defense Exhibit Number 87 into evidence.
15:09:02 MS. DUANE: Your Honor, we don't think the whole
15:09:04 e-mail should come into evidence, and we would seek to use the
15:09:09 redacted version if it does.
15:09:15 THE COURT: Let me see you at the bench.
15:09:32 (At the bench, on the record)
15:09:32 THE COURT: Come up here. So what's the problem?
15:09:36 MS. DUANE: So we would like to redact the staff
15:09:38 names and --
15:09:41 THE COURT: I thought we were going to do redacting
15:09:42 later so we could move along today.
15:09:44 MS. ARDOLINO: Yeah. I think our only request would
15:09:46 be that we have some way of identifying the position or the
15:09:52 organization that this individual was associated with. We

15:09:54 don't need the individual's --

15:09:56 MR. MCCARTY: I think we need to deal with redactions later, because then it can go into the public record. For now all we're doing is moving 87 into evidence, whether redacted or not.

15:10:06 MR. LAWRENCE: Here's the issue -- and it will be a broader issue throughout the trial, Your Honor -- is that with respect to Mr. Kumar's e-mail, his statement is -- I mean, he's a party. It's a statement of a party opponent. But, to the extent that there are other statements in the document and there's no basis to admit them --

15:10:23 THE COURT: Well, it's not that there's no basis to admit them. There is a basis to admit them. I haven't heard them being offered for the truth any of the statements that are made in them. This is an exchange of e-mails of which Dr. Kumar was a party. Now, I don't know why it doesn't come into evidence, and I may restrict how I consider it later on.

15:10:43 MR. LAWRENCE: Then if they're not offering statements other than Mr. Kumar's for the truth of the matter asserted --

15:10:48 THE COURT: What are you offering the exhibit for, Ms. Ardolino?

15:10:50 MS. ARDOLINO: For the truth of the matter asserted as far as to Dr. Kumar's statements. I don't believe that there are ...

15:11:04 THE COURT: Well, are you offering it because you're
15:11:04 going to cross-examine and try to impeach Dr. Kumar, or is
15:11:09 this ...
15:11:09 MS. ARDOLINO: It's -- it's going to be evidence in
15:11:12 the record regarding --
15:11:14 THE COURT: Well, I understand what it's going to be.
15:11:15 If I admit it, it's going to be in evidence.
15:11:18 MS. ARDOLINO: Right. That wasn't really articulate,
15:11:20 was it?
15:11:20 MR. LAWRENCE: That's the issue, Your Honor, is that
15:11:22 there are a number of e-mails where there are third parties
15:11:26 saying things, and they're going to say, Well, this is gospel.
15:11:28 That's the truth.
15:11:29 THE COURT: Well, that doesn't mean that I'm going to
15:11:31 accept it that way.
15:11:33 MR. LAWRENCE: Right.
15:11:33 THE COURT: You know, we can spend the rest of your
15:11:35 five days arguing about the edges of what we're going to put
15:11:40 in. Are you offering this exhibit because you're going to
15:11:45 attempt to impeach Dr. Kumar on statements that are made in it?
15:11:49 MS. ARDOLINO: Not directly, no.
15:11:52 THE COURT: Well, what is the reason for the proffer?
15:11:54 That's my question.
15:11:55 MS. ARDOLINO: Well, I haven't asked him about it
15:11:58 yet, and I may use it to impeach him. But it's being offered

15:12:03 to show that Dr. Kumar is aware of a reason why providers use
15:12:10 digoxin at 18 weeks plus.
15:12:12 THE COURT: Then we'll take it up, you can renew your
15:12:16 objection later, and I'll decide what weight I'm going to give
15:12:19 what statements are in it. But I'm going to allow the
15:12:21 objection -- I mean, I'm going to allow the exhibit. The
15:12:24 objection is overruled at this point, and Exhibit 87 is
15:12:27 admitted.
15:12:36 (Open Court)
15:12:36 THE COURT: For purposes of the audience, very rarely
15:12:39 in a bench trial will I have the attorneys to the bench. But
15:12:45 there have been questions raised about certain matters in
15:12:46 Defendants' Exhibit Number 87 perhaps being confidential, and
15:12:52 so I needed to take those up outside the presence of the
15:12:57 persons who are observing this trial.
15:12:59 So, Ms. Ardolino, you may proceed.
15:13:01 Q. (BY MS. ARDOLINO) Dr. Kumar, it's your understanding that
15:13:06 some physicians use digoxin for procedures over 18 weeks LMP in
15:13:10 order to avoid legal liability; isn't that correct?
15:13:36 A. It's part of the reasons why they may use that.
15:13:36 MS. ARDOLINO: I'm sorry, Your Honor. Have you --
15:13:38 can you rule on the record on the admission of this -- of this
15:13:44 exhibit?
15:13:44 THE COURT: Well, I did rule on the record. I mean,
15:13:46 just because --

15:13:47 MS. ARDOLINO: Okay.

15:13:48 THE COURT: -- we had the white noise machine on and the audience couldn't hear it doesn't mean it wasn't on the record. It's all on the record.

15:13:50 15:13:53

15:13:55 MS. ARDOLINO: Fair enough.

15:13:55 THE COURT: Defendants' Exhibit 87 is and has been admitted.

15:13:58 15:13:58

15:13:58 MS. ARDOLINO: Thank you, Your Honor.

15:14:06 All right. Brian, I am now ready for Defendants' 47. Thank you.

15:14:31

15:14:32 Q. Dr. Kumar, Defendants' Exhibit 47, that is the surgical abortion consent for Whole Woman's Health, correct?

15:14:35 15:14:38

15:14:38 A. Yes.

15:14:39 Q. And that is one of the informed consent forms that you use for your D&E patients, correct?

15:14:42 15:14:44

15:14:44 A. Yes.

15:14:45 Q. This form is how you let you -- your patients know what the benefits and possible risks of the D&E procedures that you perform are, correct?

15:14:50 15:14:54

15:14:56 A. I wouldn't say the D&E procedures. There's a separate consent for D&Es. This is for any kind of surgical procedure. That includes D&E, but there's also an additional one for that.

15:15:01 15:15:02

15:15:06 Q. So it includes D&Es, correct?

15:15:08 A. It is. But there's more to the D&E consent form.

15:15:10 Q. Understood. So this is one of the forms that you use to

15:15:16 let your patients know what the benefits and possible risks of
15:15:19 the D&E procedures are, correct?
15:15:22 A. Yes.
15:15:22 Q. And all of the risks listed on this form are possible
15:15:25 complications that could happen as part of the D&E procedures
15:15:30 that you perform, correct?
15:15:32 A. So not all the complications are on here. It also refers
15:15:36 to another document that's part of this process.
15:15:38 Q. I understand that it might not be the exhaustive list of
15:15:42 all the complications. But my question to you was: The risks
15:15:44 listed on this form, those are all possible complications that
15:15:47 could happen during one of your procedures, correct?
15:15:50 A. Yes.
15:15:50 Q. Okay. You consider the D&E procedures that you perform to
15:15:57 be generally safe, correct?
15:15:58 A. Yes.
15:15:59 Q. Okay. Infection is a possible complication of the D&E
15:16:04 procedures that you perform; isn't that right?
15:16:07 A. Yes.
15:16:07 Q. And the procedures that you perform could even cause a
15:16:10 serious infection, correct?
15:16:12 A. It can, but that tends to be rare.
15:16:14 Q. But it could cause serious infection, correct?
15:16:17 A. Again, it's a possibility, yes.
15:16:19 Q. It could -- that infection could even be serious enough to

15:16:22 cause permanent damage to the woman. That's possible, correct?
15:16:25 A. It's possible, but I've never seen that.
15:16:33 Q. In fact, you already give antibiotics to your patients as
15:16:37 part of your procedures in order to help avoid infection,
15:16:41 correct?
15:16:43 A. There's one dose of antibiotic before the procedure that
15:16:47 decreases their risk of it.
15:16:49 Q. Okay. Despite the possibility of infection, you still
15:16:56 consider your D&E procedure safe, right?
15:16:59 A. Yes.
15:16:59 Q. Okay. Hemorrhage is also a possible complication of the
15:17:04 D&E procedures that you perform, correct?
15:17:07 A. Yes.
15:17:08 Q. And hemorrhage, that refers to lots of blood loss,
15:17:13 correct?
15:17:13 A. There's a certain amount of blood loss in order for it to
15:17:17 qualify as a hemorrhage.
15:17:18 Q. Okay. It's possible that hemorrhage caused by D&E could
15:17:21 result in hospitalization, correct?
15:17:23 A. It's possible. But, again, I've never seen that.
15:17:25 Q. Okay. And it could also result in the need for a blood
15:17:31 transfusion, correct?
15:17:32 A. Depending on how much blood they lost, yes.
15:17:36 Q. That's possible, correct.
15:17:38 And despite this possibility of hemorrhage, you still

15:17:40 consider the D&E procedure safe, correct?
15:17:43 A. Yes.
15:17:43 Q. Okay. Injury to the uterus is also a possible
15:17:46 complication for the D&E procedures that you perform; isn't
15:17:51 that true?
15:17:51 A. Possible, but rare.
15:17:52 Q. It's possible that the procedures you perform could cause
15:17:55 a tear in the uterus, for example, correct?
15:17:58 A. I would say those are the same thing, a tear or
15:18:01 perforation.
15:18:02 Q. Okay. And so -- so it's possible that they could cause a
15:18:09 tear, correct?
15:18:10 A. A uterine perforation is possible, but rare.
15:18:13 Q. Okay. And a uterine perforation, is that the same thing
15:18:18 as a tear?
15:18:19 MS. DUANE: Objection. Asked and answered.
15:18:21 THE COURT: Overruled.
15:18:23 A. So we usually call it a uterine perforation. But I think
15:18:27 when you're saying "tear," that makes me think it's the same
15:18:28 thing. But not a common medical word that I've heard, "tear."
15:18:31 Q. Understood. So it's possible that the procedures that you
15:18:34 perform could -- could cause a uterine perforation, correct?
15:18:39 A. Yes.
15:18:40 Q. And that's a puncture of the uterus, correct?
15:18:44 A. I think that can be synonymous.

15:18:46 Q. Okay. And a uterine perforation, that's actually happened
15:18:50 to a Whole Woman's Health patient before; isn't that right?
15:18:53 A. Yes.
15:18:53 Q. And injuries from -- to the uterus from your procedures,
15:18:58 this could require hospitalization, correct?
15:19:00 A. It can.
15:19:01 Q. Yeah. And, in fact, the uterine perforation that happened
15:19:04 at Whole Woman's Health, that required that the patient be
15:19:07 admitted to the hospital, correct?
15:19:08 A. That has happened before, yes.
15:19:10 Q. And despite these risks, you still consider your D&E
15:19:16 procedures to be safe, correct?
15:19:17 A. Because they're so rare, yes.
15:19:18 Q. The D&E procedures you perform can also cause permanent
15:19:24 damage to the uterus, correct?
15:19:26 A. Again, possible, but rare.
15:19:27 Q. It can cause scar tissue to the uterus, correct?
15:19:30 A. Possible, but rare.
15:19:31 Q. And it could create -- that could create problems with
15:19:35 future childbearing, potentially, correct?
15:19:38 A. Theoretically.
15:19:39 Q. Okay. And you -- you tell your patients in the informed
15:19:44 consent that you're not even sure how often this complication
15:19:49 occurs, correct?
15:19:51 Or let me rephrase that. Your informed consent

states that it is unknown how frequently this complication occurs, correct?

A. I'm sorry. Could you show or tell me where that is?

MS. ARDOLINO: Can you please turn to page 696. Sorry. It's P696 in the section that says "Asherman Syndrome." Can you please highlight that?

Q. And so it says, "The frequency of this complication is unknown but considered rare," correct?

A. Yes. Specifically for Asherman Syndrome.

Q. And despite this risk, you still consider your D&Es to be safe procedures, correct?

A. Yes.

Q. Death is also a possible complication of a D&E; isn't that correct?

A. It's listed as one of the complications, but it's extremely rare.

Q. And despite the possibility of death, you still consider the procedures that you perform to be safe, correct?

A. Yes.

Q. Okay. I want to talk about the discomfort that your patients feel during the D&E procedures that you perform and the steps that you take to alleviate that discomfort.

So cramping is a common side effect of the procedures you perform, correct?

A. Cramping can occur during the procedure, yes.

15:21:28 Q. The drugs that you give to help with dilation, the
15:21:31 misoprostol, that can cause cramping, correct?
15:21:33 A. It can.
15:21:34 Q. And the dilation of the cervix generally can cause
15:21:37 cramping, correct?
15:21:38 A. Yes.
15:21:38 Q. And you treat women for discomfort associated with the
15:21:43 cramping, correct?
15:21:44 A. We help them manage the discomfort with medications.
15:21:48 Q. And so you administer medications to alleviate that
15:21:53 discomfort, correct?
15:21:55 A. Again, I wouldn't say it always alleviates everyone's
15:21:59 discomfort because it can be a mixture of physical, emotional.
15:22:01 It's a combination of what they may be feeling. So the
15:22:05 medications help alleviate some of that.
15:22:07 Q. Okay. And you -- you also provide heating pads to help
15:22:12 alleviate the discomfort associated with cramping, correct?
15:22:16 A. That's one of the options, yes.
15:22:19 Q. Okay. Patients undergoing one of your D&E procedures
15:22:23 commonly experience nausea, correct?
15:22:26 A. I wouldn't say the actual procedure causes nausea, but
15:22:29 it's mostly from pregnancy.
15:22:31 Q. Yeah. So they commonly experience nausea, correct?
15:22:34 A. I don't know about commonly, but it can happen.
15:22:37 Q. Okay. Patients can become nauseous because of pregnancy

15:22:44 hormones, correct?
15:22:45 A. Yes.
15:22:45 Q. And they may become nauseous because of medications that
15:22:48 you help to give them with the dilation, correct?
15:22:51 A. Yes.
15:22:51 Q. Okay. And you -- they also may be nauseous because of
15:22:56 anxiety, correct?
15:22:58 A. Yes. That's possible.
15:22:59 Q. And as part of the D&E procedures you perform, you provide
15:23:03 patients with anti-nausea medication, correct?
15:23:05 A. Yes.
15:23:05 Q. Okay. As part of the D&Es you perform, you already use
15:23:13 needles to inject some medications, correct?
15:23:16 A. So needles are used for the paracervical block and also
15:23:21 for placing the IV.
15:23:22 Q. Okay. And you frequently administer IV sedation as part
15:23:27 of your D&E procedures, correct?
15:23:29 A. I think if I had to estimate how many folks get the
15:23:34 sedation, it might be half.
15:23:36 Q. And those IV administrations, they involve needles,
15:23:39 correct?
15:23:39 A. Yes.
15:23:39 Q. All of your patients get a paracervical block, correct?
15:23:44 A. For surgical procedures, yes.
15:23:47 Q. And you inject lidocaine around the cervix as part of that

15:23:51 D&E procedure. That's the paracervical block, correct?
15:23:55 A. Yes.
15:23:55 Q. That involves using a needle to inject the patient around the cervix, correct?
15:23:59
15:24:00 A. Yes.
15:24:00 Q. Okay. And you actually do four injections around the cervix for the para -- for the paracervical blocks that you perform, correct?
15:24:03
15:24:08
15:24:09 A. Yes. That's how I perform them.
15:24:11 Q. And the needle that you use for those injections is a 22-gauge needle, correct?
15:24:14
15:24:15 A. It's a 22-gauge, 1 1/2-inch needle, yes.
15:24:18 Q. Okay. And the paracervical block, that can cause some discomfort, correct?
15:24:23
15:24:24 A. It can.
15:24:24 Q. Okay. Patients undergoing D&E procedures at your clinic often experience anxiety -- or can also experience anxiety; is that correct?
15:24:29
15:24:34
15:24:35 A. That's one of the things that somebody may be experiencing, sure.
15:24:37
15:24:38 Q. And you regularly administer medications to patients undergoing D&Es in order to help treat this anxiety, correct?
15:24:41
15:24:46 A. It's an option for patients.
15:24:48 Q. Okay. Dr. Kumar, in the D&E procedures that you perform, you use forceps to remove fetal parts from the uterus, correct?
15:25:10

15:25:17 A. For some of the D&E procedures, it can involve forceps.
15:25:21 Q. Okay. So in some of the D&E procedures that you perform,
15:25:24 you are not using forceps; is that correct?
15:25:27 A. Sometimes it can be just suction.
15:25:30 Q. Okay. And when you do use forceps in your D&E procedures,
15:25:43 you use Bierer forceps, correct?
15:25:47 A. That's one of the type of forceps that I use.
15:25:49 Q. Okay. You also use Sopher forceps, correct?
15:25:53 A. That's another type I use, yes.
15:25:57 Q. Okay. And you use -- you use -- when you use the forceps,
15:26:05 you pass them through the cervix into the uterus, correct?
15:26:10 A. Yes.
15:26:10 Q. And you grab ahold of tissue, correct, with the forceps?
15:26:15 A. Yes.
15:26:15 Q. Okay. And you remove that tissue from the uterus through
15:26:22 the cervix, correct?
15:26:23 A. Yes.
15:26:23 Q. And that tissue, that could be part of a fetus, correct?
15:26:28 A. It's some sort of pregnancy tissue, yes.
15:26:32 Q. Okay. Which includes fetal parts, correct?
15:26:35 A. Yes. It can.
15:26:36 Q. So that could be the arm of a fetus, correct?
15:26:39 A. That's a possibility.
15:26:40 Q. It could be the leg of a fetus, correct?
15:26:43 A. It's a possibility.

15:26:44 Q. It could be part of a torso, correct?
15:26:47 A. Yes.
15:26:48 Q. Okay. It could be part of a spine, correct?
15:26:51 A. Yes.
15:26:52 Q. Or part of a head, correct?
15:26:54 A. Yes.
15:26:55 Q. Okay. And you do not cause fetal demise prior to your D&E
15:27:02 procedure using forceps in your D&E procedures, correct?
15:27:06 A. Yes.
15:27:07 Q. Okay. So, when you use these forceps to remove parts of a
15:27:12 fetus as part of your procedures, you might be doing that to a
15:27:18 fetus that is still alive, correct?
15:27:21 A. That's correct.
15:27:26 MS. ARDOLINO: Pass the witness.
15:27:28 THE COURT: This is probably about as good a time as
15:27:31 any to take our afternoon recess. We'll be in recess for 15
15:27:33 minutes.
15:27:34 (Recess)
15:46:25 (Open court)
15:46:25 THE COURT: Ms. Duane, redirect?
15:46:29 MS. DUANE: Just a few questions.
15:46:29 **REDIRECT EXAMINATION**
15:46:29 **BY MS. DUANE:**
15:46:29 Q. Dr. Kumar, a D&E procedure involves several injections; is
15:46:42 that right?

15:46:42 A. Yes.
15:46:43 Q. Do you believe there is a medical purpose to those
15:46:47 injections?
15:46:47 A. So for the injections that I mentioned earlier, one is the
15:46:50 paracervical block which can provide -- cause some discomfort
15:46:53 for the patient, but it has the benefit where the sensation for
15:46:57 cramping towards the end of the procedure is lessened and the
15:47:00 procedure is more tolerable. The other injection I mentioned
15:47:03 requires the use of a needle is the IV insertion, and, again,
15:47:06 that's for giving medications. So, while that can cause some
15:47:10 discomfort when we're placing the IV, there's some benefit with
15:47:12 being able to have the medications that cause conscious
15:47:18 sedation.
15:47:19 Q. Based on your knowledge as a physician, does any injection
15:47:24 carry a risk of infection?
15:47:25 A. Yes, it can.
15:47:26 Q. What medications do you provide prophylactically during
15:47:38 the D&E procedure?
15:47:40 A. So for anybody at our clinic having a surgical procedure,
15:47:43 they would have ibuprofen to prevent any discomfort from
15:47:48 cramping, nausea medicine to prevent aspiration during the
15:47:51 procedure, and then they would also get a dose of antibiotics
15:47:55 to prevent infection.
15:47:59 Q. Is it your opinion that adding an additional procedure
15:48:02 would increase the risks of the procedure?

15:48:05 A. Yes.
15:48:06 Q. Is it your opinion that a procedure that has risks can
15:48:12 still be safe?
15:48:14 A. Yes.
15:48:16 Q. And what is your opinion about performing procedure that
15:48:21 has risks but no medical benefit?
15:48:23 A. So, as a physician, you're always weighing the risks and
15:48:27 the benefits. When the benefits outweigh the risks, there's an
15:48:30 advantage to your patient. When there's risks and no benefit,
15:48:34 then it's not advantageous to the care that I provide to my
15:48:37 patients.
15:48:39 MS. DUANE: Nothing further, Your Honor. I pass the
15:48:41 witness.
15:48:41 THE COURT: Ms. Ardolino?
15:48:42 MS. ARDOLINO: Nothing, Your Honor.
15:48:43 THE COURT: You may step down.
15:48:45 MR. LAWRENCE: Your Honor, Alex Lawrence for the
15:48:57 plaintiffs. The next witness is Dr. Robin Wallace.
15:49:00 THE COURT: All right. The witness may come forward.
15:49:10 MR. LAWRENCE: She's outside the courtroom,
15:49:12 Your Honor, but we're bringing her in.
15:49:15 THE COURT: All right.
15:49:15 (Witness sworn)
15:49:15 **********

ROBIN WALLACE, M.D., M.A.S.,

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. LAWRENCE:

Q. Dr. Wallace, could you please introduce yourself to the court.

A. Yes. I am Robin Wallace, a family physician in Dallas.

Q. And where are you currently employed, Dr. Wallace?

A. I work at Southwestern Women's Surgery Center.

Q. You just mentioned Southwestern is in Dallas?

A. Yes, it is.

Q. And what type of facility is Southwestern?

A. It's a licensed ambulatory surgery center where we provide family planning services.

Q. And how long have you been at Southwestern?

A. I began working at Southwestern in December of 2012.

Q. And what's is your current position at Southwestern?

A. I now serve as medical director of Southwestern Women's, a position I've held since the summer of 2014.

Q. And do you have any professional certifications?

A. Yes. I am a board-certified family physician, and I have also completed a fellowship in family planning.

Q. And are you licensed to practice medicine in the state of Texas?

A. Yes, I am.

15:51:15 Q. Dr. Wallace, can you tell us a little bit about your
15:51:17 educational background?
15:51:19 A. Sure. So I spent my undergraduate years at the University
15:51:23 of Virginia in Charlottesville. I went to medical school back
15:51:27 home in North Carolina at UNC in Chapel Hill. I graduated in
15:51:31 2004 and went to Santa Rosa, California for my family medicine
15:51:37 residency. So it was a three-year training program with Santa
15:51:41 Rosa Family Medicine. I finished that in 2007 and also
15:51:45 completed the fellowship in family planning at the University
15:51:49 of California in San Francisco and completed that in 2011.
15:51:54 Q. What are your responsibilities as medical director at
15:52:00 Southwestern?
15:52:00 A. I oversee all of the clinical and medical care at the
15:52:05 facility, managing our staff physicians, training new
15:52:09 physicians when they begin with us, as well as provide
15:52:11 oversight and guidance for all of our clinical providers, our
15:52:16 nurses, and our counselors.
15:52:17 Q. And do you personally provide services to patients at
15:52:21 Southwestern?
15:52:22 A. Yes. In addition to my medical director responsibilities,
15:52:26 I do provide patient care and provide abortion services in both
15:52:31 the first and second trimester up through 21 weeks and 6 days
15:52:36 by last menstrual period dating.
15:52:38 Q. And over the years, about how many abortions have you
15:52:42 provided?

15:52:44 A. I estimate that I have probably provided 2- or 3,000
15:52:48 abortions.
15:52:50 Q. And of those 2- or 3,000, just estimating, how many have
15:52:54 been in the second trimester?
15:52:56 A. About 10 -- anywhere from 10 to 15 percent of my practice
15:52:59 is second-trimester care. So 2- to 300.
15:53:08 Q. Dr. Wallace, if you could look right next to you, you have
15:53:12 some tabbed binders. Look for the binder one of three.
15:53:18 A. Uh-huh.
15:53:19 Q. And if you'll turn to tab 8, that will be a document
15:53:25 marked as Plaintiff's Exhibit 8.
15:53:32 A. Yes.
15:53:32 Q. Do you recognize that document, Dr. Wallace?
15:53:36 A. Yes. This is my CV.
15:53:42 Q. And does the CV reflect a more complete recitation of your
15:53:45 professional experience and background?
15:53:47 A. Yes, it does.
15:53:49 MR. LAWRENCE: Your Honor, we move for the admission
15:53:51 of Dr. Wallace's CV.
15:53:54 MR. STEPHENS: We object to hearsay grounds and the
15:53:58 fact that she hasn't summarized the contents of that document.
15:54:05 THE COURT: Yeah. I know everybody wants to go
15:54:07 around the edges on things that don't really have a lot to do
15:54:09 with it. Your objection is overruled. I'm going to admit the
15:54:12 CV. And let it be known, if the state calls expert witnesses,

15:54:15 I'm going to allow their CVs to be admitted, too. So what is
15:54:20 fair is fair.
15:54:21 Plaintiff's Exhibit Number 8 is admitted.
15:54:30 MR. LAWRENCE: Your Honor, at this time we would like
15:54:31 to tender Dr. Wallace as an expert in abortion services in the
15:54:35 state of Texas.
15:54:38 MR. STEPHENS: No objection, Your Honor.
15:54:39 THE COURT: All right. Dr. Wallace may testify as an
15:54:42 expert on abortion services in the state of Texas.
15:54:51 Q. (BY MR. LAWRENCE) Now, Dr. Wallace, can you tell us how
15:54:53 many weeks into the pregnancy does Southwestern provide
15:54:58 abortions?
15:54:58 A. We provide to the full extent allowed under the Texas
15:55:01 state law. So we offer abortions, both medication abortions
15:55:05 and procedures or uterine aspirations in the first trimester,
15:55:11 and we offer dilation and evacuation abortions in the second
15:55:15 trimester up until 21 weeks and 6 days by last menstrual period
15:55:19 dating. That's the last day a woman may begin her abortion
15:55:23 procedure.
15:55:24 Q. Now, the dilation and evacuation procedure you just
15:55:27 mentioned, that's the D&E procedure?
15:55:29 A. Yes, it is.
15:55:32 Q. And how many steps are involved in a D&E procedure?
15:55:36 A. Essentially, it is a two-step process, the first step
15:55:40 being the dilation of the cervix and the second step being the

15:55:44 evacuation of the uterus to remove the pregnancy tissue.
15:55:48 Q. All right. Let's talk about the first step first. Could
15:55:51 you describe the dilation process?
15:55:54 A. All right. So, typically, most patients at their first
15:55:59 visit for the actual abortion procedure come in and have
15:56:02 osmotic dilators placed inside their cervix. They're very
15:56:07 small, long dilators that get placed inside the cervix and stay
15:56:13 in place for a period of time. For some women this will --
15:56:16 they will only stay in place for several hours that day as they
15:56:20 slowly expand and stretch open the cervix, and for other women
15:56:25 we'll leave those dilators in place overnight. Once we remove
15:56:28 those dilators, then we're able to proceed with the evacuation
15:56:31 if enough dilation has occurred.
15:56:33 Q. Okay. Let's move on to the second step. That's the
15:56:36 evacuation process.
15:56:37 A. Yes.
15:56:38 Q. Can you describe that for us?
15:56:39 A. Sure. Once we remove the dilators and have assessed that
15:56:44 there's been adequate cervical dilation in order to safely
15:56:49 proceed with the abortion procedure, we evacuate the fluid of
15:56:52 the pregnancy using an aspiration or suction machine and then
15:56:57 we use other instruments, forceps, to remove the fetal tissue
15:57:01 and the placenta. I usually complete the evacuation with
15:57:05 another pass of our suction cannula, or the plastic straw,
15:57:12 that's attached to the suction machine to assure that all

15:57:14 remaining tissue is removed.
15:57:16 Q. And at what gestational age do you use forceps in this --
15:57:22 in this process?
15:57:23 A. I typically begin around 15 weeks. And, again, that's LMP
15:57:29 or last menstrual period dating, so 15 weeks. Occasionally I
15:57:36 will use forceps at less than that, between 14 and 15 weeks,
15:57:40 for any tissue that is not passing through the suction cannula.
15:57:45 Q. And, to your knowledge, do some physicians use forceps
15:57:49 prior to 15 weeks?
15:57:51 A. Yes. I think many -- several of the physicians that I
15:57:53 work with and other physicians that I know do use forceps
15:57:58 beginning at 14 weeks routinely.
15:58:02 Q. Do you ever induce fetal demise before the evacuation
15:58:06 process?
15:58:06 A. Our protocol at Southwestern Women's and the one that I
15:58:14 follow is to administer an injection of digoxin beginning at 20
15:58:18 weeks LMP dating in order to induce demise prior to the
15:58:22 evacuation step of the procedure.
15:58:24 Q. And, to your knowledge, why did Southwestern decide to
15:58:27 implement a fetal demise protocol at 20 weeks?
15:58:31 A. So it was the practice that was begun before I joined the
15:58:34 practice in 2012. My understanding is, historically, the
15:58:38 practice began in response to the legislation that was passed
15:58:44 which required extra assurance that there would be no cardiac
15:58:48 activity of the fetus at the time of evacuation for any

pregnancies that were near viability or 24 weeks.

When I first came to Texas in 2012, it was still legal in Texas to offer abortions up to 24 weeks, so we had that practice in place. The physicians that were at Southwestern before I was chose to extend that practice of digoxin administration as low as 20 weeks because they felt that it facilitated the evacuation part of the procedure.

Q. And when did Southwestern stop performing abortions after 21.6 weeks?

A. When HB 2 went into effect, we immediately complied and reduced our gestational age capacity.

Q. Dr. Wallace, prior to 20 weeks, do physicians at Southwestern attempt to induce fetal demise?

A. Generally, no. Only in rare circumstances do we make any efforts to induce demise prior to 20 weeks.

Q. Why don't you typically induce demise before 20 weeks?

A. Our -- from our experience and our practice, there is no added benefit to -- to using extra medical interventions to induce demise before 20 weeks because it is not felt that it makes the procedure any easier or safer at that point.

Q. Okay. When you induce demise at Southwestern, how do you do it?

A. Okay. So the digoxin administration occurs simultaneous to the placement of the cervical dilators that will stay in place overnight. So the patient is brought back to one of our

16:00:39 procedure rooms. She lays down on the exam table in the
16:00:44 lithotomy position, which means --
16:00:47 Q. Well, what is the lithotomy position, if you could explain
16:00:50 for us what that is.
16:00:51 A. Sure. So both of her legs are up in knee rests or
16:00:56 stirrups, and she's completely exposed from the waist down.
16:01:02 It's very similar to a typical pelvic exam or Pap smear exam.
16:01:07 We have a nurse and a counselor present for support and to
16:01:10 offer medication.
16:01:11 And then I begin with a pelvic exam, place a vaginal
16:01:17 speculum in order to visualize the cervix well. We clean it
16:01:20 with antiseptic and administer lidocaine injections around the
16:01:27 cervix. And we also administer additional lidocaine through
16:01:31 the vaginal tissue into the -- and through the muscular wall of
16:01:36 the uterus to anesthetize the path where we will be doing the
16:01:42 digoxin injection.
16:01:43 Q. Where are you in relation to the patient when you're
16:01:46 injecting the digoxin?
16:01:47 A. Yes. So, for our typical transvaginal injection, which
16:01:55 I'm describing, I'm sitting below the patient facing her
16:02:00 perineum, or vaginal opening. And my nurse is usually along
16:02:06 one side of me on the other side of one of the patient's legs
16:02:09 with the ultrasound machine and has -- in order to provide
16:02:13 visualization with the ultrasound machine for the procedure.
16:02:18 So then the next step after administering the

16:02:21 lidocaine through the vaginal tissue is to administer the
16:02:25 digoxin. We use about a four-inch needle that passes from the
16:02:32 vaginal tissue through that layer of tissue into the muscle of
16:02:39 the uterus, through and through the muscular wall of the
16:02:43 uterus, into the uterine cavity where the pregnancy tissue is.
16:02:50 Our objective to make the digoxin most effective is
16:02:54 to have this injection go into the fetus itself. Once we're
16:02:59 able to visualize that with the ultrasound, then I administer
16:03:04 medication through a syringe that passes through the needle.
16:03:07 Q. Let me make sure I understand this. First you inject
16:03:11 lidocaine?
16:03:12 A. Yes.
16:03:12 Q. And do you use the same needle to inject the lidocaine as
16:03:17 you do to inject the digoxin?
16:03:18 A. We use two different needles for this process. So we use
16:03:23 a single needle for the lidocaine.
16:03:26 Q. How long is that needle?
16:03:27 A. It's one and a half inches.
16:03:29 Q. Okay.
16:03:30 A. That creates the initial path that's been anesthetized.
16:03:37 But many women can feel that lidocaine injection because, of
16:03:40 course, the needle is passing through tissue that has not yet
16:03:45 been anesthetized. So that could be very uncomfortable or
16:03:49 painful for some women.
16:03:50 We then pass the four-inch needle through that numbed

16:03:54 pathway where the lidocaine has been administered. Many women
16:03:59 the lidocaine works well and they don't feel much aside from
16:04:03 pressure, but, I -- I do notice that many women still, despite
16:04:08 our best efforts to numb the area, will feel discomfort or pain
16:04:12 as that four-inch needle is being passed through.
16:04:16 Q. So you're referring right now to a transvaginal injection
16:04:22 of digoxin; is that correct?
16:04:23 A. Yes.
16:04:24 Q. Is there another area of the body in which you could
16:04:27 inject the digoxin?
16:04:28 A. If we are unsuccessful at administering a transvaginal
16:04:33 injection or feel that it would not be successful if attempted,
16:04:37 then we will attempt a transabdominal injection.
16:04:41 Q. Okay. Transabdominal, into the abdomen?
16:04:44 A. Into the abdomen. Exactly.
16:04:46 Q. Okay. And is this still a four-inch needle that your
16:04:50 injecting into the abdomen?
16:04:53 A. Yes, it is. And we would do the same process of doing an
16:04:56 initial injection with lidocaine to create a numbed pathway.
16:05:00 And then, so that would go through the skin, through the
16:05:04 subcutaneous or fatty layer of tissue underneath, and then
16:05:08 through the muscular wall of the uterus to reach the uterine
16:05:12 cavity. We would do that with the lidocaine needle first, and
16:05:16 then second needle for the digoxin, which is the four-inch
16:05:19 needle, is passed through that numbed pathway from the skin,

16:05:23 through the fatty layer of tissue, into the uterine muscle
16:05:26 wall, into the pregnancy.
16:05:27 Q. Now, the patient, is she conscious at this point in time?
16:05:31 A. Yes. We offer medications for pain and for anxiety to all
16:05:36 of our patients. However, many of our patients -- in order to
16:05:41 get those sedating medications, you of course must have a
16:05:45 driver to take you home. Many of our patients are unable to
16:05:48 arrange rides both days, or they just have a preference for not
16:05:53 being sedated on both days.
16:05:56 So some women will be completely awake and aware and
16:06:00 have received no sedating medications at all but will have
16:06:04 taken ibuprofen, while other patients would have been given
16:06:08 those medications, but they are not at all designed to put
16:06:11 someone completely to sleep. So women are still aware of their
16:06:16 surroundings and notice what's going on.
16:06:18 Q. So when your -- when your injecting the digoxin through
16:06:22 the transvaginal method, can the -- can the patient see this
16:06:26 four-inch needle being injected in their body?
16:06:28 A. No. They're not able to see it at all. Their position
16:06:35 lying on the table, they cannot see me or see what I'm doing
16:06:37 within the vaginal speculum, which is where the injection is
16:06:40 taking place.
16:06:41 Q. But if your injecting it into the abdomen, can the patient
16:06:46 see you injecting them with this four-inch needle?
16:06:49 A. Yes. They absolutely could just kind of look up, you

know, above their nose and see what's happening on their abdomen.

Q. Does -- does a transvaginal injection of digoxin, are you able -- ever unable to achieve an injection of the fetus transvaginally?

A. Absolutely. We have a relatively good success rate with the injection; however, a couple of times per year, I certainly can't reach the fetus at all with the transvaginal injection. And then I must decide whether I'm just going to proceed with an intra-amniotic injection, meaning just injecting the medication into the fluid, which is a less efficacious method of inducing demise, or switching over to the transabdominal injection.

Q. What can go wrong when you insert a four-inch needle into a patient's abdomen or into her vagina?

A. Yeah. So anytime we insert a needle, particularly a large needle, into a human body, there's a risk of many things going wrong. Most notably, anytime any needle or any other instrument is passed from the external surface into the body cavity, you can transmit bacteria. So you can transmit bacteria from inside the vagina through into the uterus. The same, you can transmit bacteria from the skin into the abdomen and the uterus and cause an infection.

You can also experience unexpected bleeding, perhaps from passing the needle through a larger blood vessel. You can

16:08:41 injure adjacent organs; and, in this case, it's most commonly
16:08:45 the bladder or the intestine. And, of course, it can be
16:08:49 painful.
16:08:50 Q. You could perforate the intestine as you're passing the
16:08:53 needle through?
16:08:54 A. Yes. That is one of theoretical concerns.
16:08:57 Q. I mean, have you ever heard of a case where the intestine
16:09:03 has been nicked or perforated while you're injecting some type
16:09:08 of chemical to induce demise?
16:09:11 A. I have heard of an instance where a KCl injection had been
16:09:18 performed for a patient at the start of her procedure. And, on
16:09:21 the following day, she -- and it was a transabdominal
16:09:26 injection -- on the following day she returned for completion
16:09:29 of the procedure. She was febrile, meaning she had high fever.
16:09:34 When they began to remove the pregnancy tissue, it had an awful
16:09:38 odor. They described the fluid of the pregnancy as bubbling,
16:09:43 and the fetal tissue was completely liquefied -- all signs of a
16:09:49 very severe infection that had occurred.
16:09:52 And the most plausible explanation that was offered
16:09:55 by the providers involved was they thought that the needle that
16:09:59 had been used to inject the KCl had actually passed through the
16:10:04 intestines on the path to the uterus, because the bacteria that
16:10:10 was recovered from the microscopic examination of the fluid was
16:10:16 E. coli, which is a very common gut or intestinal bacteria.
16:10:21 Q. So you nicked the gut and E. coli goes into the uterus?

16:10:25 A. Yeah. And the bacteria is carried through into the
16:10:28 uterus.
16:10:29 Q. Is it fair to say that it's a good medical practice, if
16:10:31 you don't have to stick a four-inch needle into someone, not to
16:10:36 do it?
16:10:36 A. Yes. Generally speaking, as a physician, I would far
16:10:39 prefer not to have to administer unnecessary injections for my
16:10:45 patients.
16:10:45 Q. Because things could go wrong?
16:10:47 A. Yes. Things could go wrong anytime you're offering an
16:10:50 intervention that is not medically required.
16:10:53 Q. Okay. When you inject digoxin into the -- into the
16:11:00 patient, where does it go in the fetus?
16:11:05 A. So we inject into the most accessible part of the fetus,
16:11:08 whichever part of the fetus which is closest to the injection
16:11:12 site. At the gestations we use it, at 20 and 21 weeks, most
16:11:18 commonly the calvarium, or the head, of fetus is in that
16:11:22 location closest to the cervix.
16:11:24 Q. Okay. Are you always able to get the injection into the
16:11:30 body of the fetus?
16:11:33 A. No. We're not always able to get it into the body of the
16:11:36 fetus.
16:11:37 Q. And what do you do then?
16:11:39 A. Yeah. So that's when we decide whether we will just
16:11:45 proceed with an injection into the fluid, if we have reached

16:11:49 the cavity of the uterus and are inside the pregnancy sac, and
16:11:54 can administer the medication into the fluid itself. That is
16:11:58 less effective. Some studies have shown that the efficacy of
16:12:04 the intrafetal can be 94, almost 95 percent in one study, but
16:12:08 in that same study, injecting into the fluid was only
16:12:12 82-percent effective. So there's a significant difference in
16:12:15 the efficacy of the digoxin, whether it is in the fetus or in
16:12:19 the fluid.
16:12:20 So if I -- so I will decide -- so I will decide
16:12:26 whether I'll just proceed with the fluid and hope that we're in
16:12:31 that 82 percent and it will be effective for inducing demise or
16:12:35 make assessment based on the ultrasound of whether or not I
16:12:38 think I could be successful in an intrafetal injection if I
16:12:44 went through the abdomen.
16:12:45 Q. What are the reasons why you may not be able to get the
16:12:49 needle into the fetus itself and may end up just injecting the
16:12:55 digoxin into the amniotic fluid?
16:12:58 A. So every woman's anatomy and positioning of her uterus
16:13:02 and, therefore, the pregnancy, are very different. And her
16:13:08 past pregnancies or medical history, especially if she's had
16:13:11 prior C-sections for prior deliveries, can significantly alter
16:13:17 her anatomy. And so there are times where, because of
16:13:20 C-section scar tissue or other contributing factors, that the
16:13:24 uterine cavity is just very difficult to reach safely.
16:13:28 There are also other factors having to do with the

16:13:31 pregnancy itself. If the placenta was very low down in the
16:13:35 uterus, if the placenta was covering that margin where -- where
16:13:40 my typical injection site would be, it is -- you know, it is
16:13:44 not good practice to pass the needle for the digoxin through a
16:13:48 placenta in order to reach the fetus or the amniotic cavity.
16:13:53 So if the placenta is in a location, especially in
16:13:57 the front of the uterus or low down, then it -- or if the
16:14:01 woman's anatomy is such that the uterus is pulled up very high
16:14:07 and tacked away by that scar tissue or is then sort of falling
16:14:13 towards her back -- I've seen that in a couple of patients, as
16:14:15 well, a pretty dramatic elongation or a lengthening of the
16:14:19 lower part of the uterus, and then the larger part of the
16:14:24 fundus, the top of the uterus where the pregnancy is growing,
16:14:27 has tipped backwards towards her spine.
16:14:30 And so that -- the elongating keeps it farther away
16:14:36 from vagina, so it makes it very difficult for the needle to
16:14:39 reach inside the cavity by accessing it through transvaginal
16:14:43 injection. And then that tipping backwards away from the
16:14:46 abdomen can allow the intestines and other organs to actually
16:14:51 physical be in between the abdominal wall and the uterus,
16:14:55 making transabdominal injection unavailable.
16:14:58 Q. So have you experienced cases in your practice where you
16:15:02 have been unable to inject digoxin, either transabdominally or
16:15:08 transvaginally, into either the fetus or the amniotic fluid?
16:15:13 A. Yes. I have had at least one case that I remember

16:15:16 where -- very similar to what I just described, the -- the
16:15:20 pregnancy was very inaccessible to me. I couldn't reach it
16:15:26 transvaginally because of, presumably, scar tissue or something
16:15:32 kind of pulling the lower part of the uterus up away from the
16:15:38 vaginal opening and then that larger part of the uterus where
16:15:43 the pregnancy is growing falling back towards her spine, and so
16:15:46 not feeling like I could reach it safely through the abdomen
16:15:49 either.
16:15:49 Q. Could not reach it safely with a four-inch needle through
16:15:53 the abdomen or through the vagina?
16:15:55 A. Exactly.
16:15:57 Q. Assuming it works, how long does digoxin take to result in
16:16:05 fetal demise?
16:16:06 A. We typically allow for 24 hours before having the patient
16:16:11 return because that is the -- most of the research supports
16:16:16 that as a reliable time for demise to have occurred after an
16:16:21 injection.
16:16:22 Q. Does -- are there any variables on whether -- where you
16:16:29 inject the digoxin?
16:16:30 A. Absolutely. So, of course, injecting digoxin directly
16:16:38 into the fetus has a more expeditious and a higher success rate
16:16:41 of achieving demise versus into the fluid. So if the
16:16:44 medication is only going into the fluid, it takes a lot more
16:16:47 time for that medication to be absorbed by the placenta and
16:16:51 then circulated into the fetal circulation to take effect.

16:16:56 When you're doing an intrafetal injection, there can
16:17:00 be a lot of variability as well. My understanding is -- and it
16:17:04 makes sense from a physiology perspective -- is that if you're
16:17:08 injecting into a part of the fetal body that has more
16:17:11 circulation, sort of more vascular tissue, then it will much
16:17:15 more quickly be circulated throughout the fetus and lead to
16:17:20 demise.
16:17:21 So, if you inject into the thorax or the upper part
16:17:24 of the body closer to the heart and sort of the central
16:17:28 vasculature, then demise is achieved more quickly. However, if
16:17:32 you inject into a more distal or distant part of the fetus such
16:17:38 as the foot, then it may be less likely to cause demise.
16:17:41 I also understand that certain anomalies or
16:17:47 abnormalities which -- in the development of the fetus, that's
16:17:51 a very common reason that women are seeking terminations,
16:17:54 especially at 20 and 21 weeks, are because of fetal anomalies
16:17:59 that have been recently diagnosed, especially if they are
16:18:03 central nervous system anomalies, which are very commonly found
16:18:07 and often lethal anomalies for the fetus. There can be
16:18:17 abnormalities in how the circulation or vasculature in the
16:18:21 brain would be because there often can be large cavities of
16:18:24 empty space from these developmental abnormalities.
16:18:29 Since that's the most commonly reached location in
16:18:32 the fetus, if I inject the digoxin there, there is a lower
16:18:35 chance that it would be successfully circulated throughout the

16:18:38 fetal circulation because of the lack of circulation in those
16:18:42 anomalies.
16:18:42 Q. Dr. Wallace, does the difficulty of causing fetal demise
16:18:47 with digoxin vary throughout the pregnancy?
16:18:50 A. Yes. So as the pregnancy enlarges, certainly it is an
16:18:58 easier injection to perform. Because the injection is most
16:19:01 successful when it's intrafetal, when the fetus is larger, such
16:19:05 as at 20 weeks, it is easier to do the injection. It also is
16:19:13 the reason we choose to begin at that gestation and not
16:19:16 earlier, because of the size of the fetus. It isn't until
16:19:19 you've reached that stage of pregnancy that we feel that it
16:19:23 actually provides any benefit.
16:19:24 Q. And so in the earlier gestational ages, the fetus is just
16:19:30 smaller, so it's harder to hit with that four-inch needle?
16:19:32 A. Exactly. So at lower gestational ages, there's a lot more
16:19:36 fluid relative to the size of the fetus. It can make it much
16:19:40 more difficult to have a successful injection.
16:19:44 Q. I imagine if you were trying to aim directly at the heart
16:19:48 of that gestational age, it would be exceedingly difficult?
16:19:52 MR. STEPHENS: Objection. Leading, Your Honor.
16:19:53 THE COURT: Sustained.
16:19:55 Q. (BY MR. LAWRENCE) Have you ever attempted to inject
16:20:05 digoxin with this four-inch needle into the fetal heart?
16:20:09 A. No. I have never attempted to actually reach the heart.
16:20:12 Q. Do you have any opinion on whether that would be more

16:20:18 difficult?
16:20:19 MR. STEPHENS: Objection. Lacks foundation. She
16:20:22 just said she's never done it.
16:20:24 MR. LAWRENCE: Well, Your Honor --
16:20:25 THE COURT: Lay a foundation.
16:20:26 Q. (BY MR. LAWRENCE) Is the fetal heart a smaller part of the
16:20:29 fetus than the fetus itself, Dr. Wallace?
16:20:33 A. Yes, it is. Much smaller.
16:20:35 Q. Is it harder to hit a smaller target than a bigger target,
16:20:39 Dr. Wallace?
16:20:40 A. Yes. Much more difficult for a smaller target.
16:20:43 Q. Based on that, would it be more difficult to hit the fetal
16:20:54 heart with the four-inch needle, Dr. Wallace?
16:20:57 MR. STEPHENS: Same objection, lack of foundation.
16:20:59 THE COURT: Overruled.
16:21:01 A. Yes. It would be much more difficult to achieve a
16:21:06 confirmed intracardiac injection with a four-inch needle than
16:21:12 simply an intrafetal injection.
16:21:15 Q. Based on your personal experience, how often does digoxin
16:21:24 fail to cause fetal demise?
16:21:26 A. So, in my experience and practice, I usually see a couple
16:21:32 of times per year that our patients return at their 24-hour --
16:21:36 after their -- 24 hours after their digoxin injection when we
16:21:40 would have expected demise to have occurred, and there is
16:21:45 persistent heart activity in the fetus. So the digoxin has

failed in those cases. I would say usually one or two per year. I generally participate in about 100 of these cases per year, so 1 or 2 percent.

Q. So somewhere between one out of every 50 and one out of every 100 procedures where you attempt to use digoxin to cause fetal demise, it doesn't work?

MR. STEPHENS: Objection, leading.

THE COURT: Sustained.

Q. (BY MR. LAWRENCE) Before you start a procedure, do you have any way of knowing whether or not the digoxin will actually cause fetal demise?

A. No, I don't.

Q. And, again, you said that demise failed to occur in -- in 1 to 2 percent of cases each year?

A. Yes.

Q. Have you ever used umbilical cord transection to cause fetal demise?

A. On rare occasions I have used umbilical cord transection.

Q. When you -- when you -- how often over your career have you used it?

A. Usually only one or two cases per year at Southwestern, and often those are the cases in which the digoxin has failed.

Q. And in those cases where the digoxin has failed and you've attempted umbilical cord transection, have you successfully transected the umbilical cord in each of those cases?

16:23:27 A. No, I haven't. And, actually, I had a case very
16:23:30 recently -- it was in early September, I believe -- where I was
16:23:34 seeing a patient who was returning for her second day. My
16:23:37 colleague had performed an intrafetal digoxin injection the day
16:23:43 before, and the patient returned 24 hours later and had
16:23:47 persistent cardiac activity.
16:23:50 When I removed the dilators that had been in place
16:23:53 overnight to assess her cervix, her cervix was so well dilated
16:23:59 already and the patient had been quite uncomfortable before we
16:24:02 started, so I had expected to find a very dilated cervix. And
16:24:06 there -- the bag of water, the amniotic sac of the pregnancy,
16:24:11 was bulging out from her cervix into the vagina. And so I knew
16:24:17 that it was only a matter of minutes, if not, you know, an hour
16:24:21 or so, that the water would spontaneously break on its own. So
16:24:26 I knew that we needed to go ahead and complete the procedure
16:24:29 that day for her safety and in her best interest.
16:24:32 So we went ahead; and, once the water bag was broken,
16:24:37 the fetus was very firmly applied low down into the -- to the
16:24:42 cervix such that there was no way that I could actually pass
16:24:46 any instruments up beyond the fetal tissue to ever reach the
16:24:51 umbilical cord. The cord was far out of reach, and I couldn't
16:24:55 reach it at all. So there was no way to provide an umbilical
16:24:58 cord transection in that moment.
16:25:02 Q. So what did you do?
16:25:03 A. I completed the procedure anyways because that was best

16:25:06 for the patient. So I, in typical fashion, used instruments or
16:25:11 forceps to remove the pregnancy.
16:25:13 Q. You completed the D&E procedure without causing fetal
16:25:19 demise?
16:25:20 MR. STEPHENS: Objection, leading.
16:25:21 THE COURT: Sustained.
16:25:25 Q. (BY MR. LAWRENCE) Did you cause fetal demise before
16:25:28 completing the D&E procedure?
16:25:30 A. No. Not before beginning to remove the fetus with the
16:25:34 forceps.
16:25:35 Q. In those cases where the digoxin fails to cause fetal
16:25:45 demise, do you use a second dose of digoxin?
16:25:49 A. There have only been rare circumstances where a second
16:25:55 digoxin injection has been used. I can only think of about one
16:26:01 case in the five years that I've been at Southwestern Women's
16:26:06 where I've actually administered a second dose of digoxin. And
16:26:09 that was an instance where the patient returned, there was
16:26:12 persistent cardiac activity, I assessed the patient clinically,
16:26:16 and her cervix had not dilated well overnight. And so I did
16:26:21 not feel like I could complete the procedure safely with the
16:26:24 lack of dilation that she had, given her gestational age, so we
16:26:29 were going to be replacing dilators anyway to give us better
16:26:33 dilation overnight. And so we went ahead with the second
16:26:37 digoxin injection as well and then had her return a third day
16:26:42 for her procedure when we completed it.

16:26:44 Q. If that patient had presented and they had been at -- the
16:26:49 patient had been adequately dilated, what would you have done
16:26:52 in that instance?
16:26:53 A. I probably would have just gone ahead and completed the
16:26:56 procedure like I did with this patient that I was just
16:26:59 describing.
16:27:00 Q. Would you have administered a second dose of digoxin?
16:27:03 A. No. There wouldn't have been any need for a second dose
16:27:07 of digoxin if we were just going to finish procedure that day.
16:27:11 Q. Would there be any risks in administering a second dose of
16:27:15 digoxin with a fully dilated patient?
16:27:18 A. Yes. So, of course, anytime you administer any injection
16:27:24 with a needle, again, passing a needle into a body cavity
16:27:28 unnecessarily carries risks -- or even when it's necessary, it
16:27:32 still carries risks. It doesn't eliminate the risk. But
16:27:36 you're hoping for a benefit that is greater than the risk.
16:27:40 If the cervix is already dilated, the only reason to
16:27:44 administer more digoxin would be if you were actually going to
16:27:48 give it time to work, which is generally considered to be
16:27:52 24 hours, and it is not -- I felt in most cases that, when the
16:27:57 cervix is already well dilated, there's no medical indication
16:28:00 to wait another 24 hours. That just prolongs the time that
16:28:04 this patient has a dilated cervix, increases her risk for
16:28:08 infection, increases her risk for a spontaneous expulsion of
16:28:15 her pregnancy outside of our facility, which puts her at risk

16:28:16 for an unsupervised hemorrhage or other kind of complications
16:28:19 that could occur from having that happen.
16:28:27 Q. Dr. Wallace, in your experience, does using digoxin at
16:28:32 20 weeks or greater make the abortion procedure easier to
16:28:39 perform?
16:28:40 A. Yes. I do think that for most cases that, by inducing
16:28:47 demise, which softens the fetal tissue over a period of time,
16:28:51 that that does facilitate the procedure when you are
16:28:56 considering pregnancies at 20 weeks or later, which are
16:29:00 significantly larger and are different -- a different level of
16:29:04 difficulty of procedure then at lower gestational ages. So
16:29:08 only at 20 weeks and above do I find any benefit from using the
16:29:12 digoxin to induce demise.
16:29:13 Q. Do all physicians share your belief that using digoxin at
16:29:17 20 weeks or greater makes the procedure easier?
16:29:22 MR. STEPHENS: Objection, hearsay.
16:29:23 THE COURT: Well, but he's not offering that for the
16:29:26 truth.
16:29:28 Q. (BY MR. LAWRENCE) To your knowledge, do physicians
16:29:30 share -- all physicians share your belief?
16:29:33 A. No. To my knowledge, not all physicians share my
16:29:37 opinions, no.
16:29:38 Q. Have you ever used digoxin before 20 weeks?
16:29:46 A. In rare cases, when there's been a clinical indication to
16:29:51 induce demise before 20 weeks, I have done so, generally only

16:29:56 at 19 weeks and greater. Most frequently if -- when it happens
16:30:01 at all, it will be for a patient that's maybe 19 weeks and five
16:30:05 days or 19 weeks and 6 days, very close to the 20-week mark.
16:30:10 And usually I would make that choice if the patient
16:30:14 had no prior vaginal deliveries and I was perhaps concerned
16:30:18 about the degree of cervical dilation we would have and feel
16:30:23 that some -- the benefits that come from inducing demise would
16:30:26 aid us in completing the procedure the following day.
16:30:31 Q. So can you explain to us what that means, when you have
16:30:38 inadequate dilation and how digoxin provides a benefit?
16:30:42 A. Sure. So the procedure is safest when you have enough
16:30:47 cervical dilation, but not too much, to safely remove the
16:30:52 pregnancy tissue without causing harm. So a very small
16:30:58 cervix -- or "small," meaning not very well dilated -- if
16:31:02 you're trying to bring a larger object, the fetal tissue,
16:31:07 you're trying to bring larger fetus through a smaller, narrow
16:31:11 cervix -- cervical opening, then you're much more likely to
16:31:16 cause injury to that patient, causing a cervical laceration or
16:31:20 literally cutting into the tissue of the cervix or causing some
16:31:23 other harm to her. So the effect of the digoxin, with
16:31:28 prolonged demise, the tissue actually softens and becomes much
16:31:33 easier to collapse and bring through the cervix in a safe way.
16:31:38 Q. But as a general matter, does digoxin provide any benefit
16:31:44 before 20 weeks?
16:31:46 A. In my experience, it -- I have not found it to provide any

16:31:51 benefit. The level of difficulty of a procedure at less than
16:31:56 20 weeks is very different than over 20 weeks and I have not
16:31:59 found any benefit from the digoxin at lower gestations.
16:32:06 Q. Dr. Wallace, how many visits does it take to complete a
16:32:10 D&E procedure in total? Just take me from day one when the
16:32:13 patient calls the clinic.
16:32:14 A. Sure. So the patient's first visit at our clinic, their
16:32:17 day one is for an ultrasound to assess how far along she is in
16:32:22 the pregnancy. And, of course, in Texas there is the required
16:32:27 24-hour wait after she's had her ultrasound and received the
16:32:32 state-mandated information about abortion. So that's day one
16:32:36 for the -- for all patients unless they fall into the small
16:32:40 exception for patients that live more than 100 miles away. So
16:32:44 day one is the ultrasound, and our patient's also receive
16:32:48 one-on-one counseling from one of our counselors on that day
16:32:54 after they've met with the physician and had their medical
16:32:57 history reviewed.
16:32:58 Day two, the patients return and, if they're having a
16:33:04 D&E -- it depends on their gestational age what exactly the
16:33:08 plan is going to be. For women that are between 15 weeks and
16:33:12 17 weeks and 6 days, there's actually two different options for
16:33:16 the dilation process. If we're able to schedule them early
16:33:19 enough in the morning -- and that's highly dependent on what
16:33:23 time their ultrasound was because, frequently, patients are
16:33:27 given their ultrasound immediately the day before they're

returning for their procedure. That's the most expeditious way -- sort of the easiest way for patients to be able to meet a physician one day and come back the next day with that same physician. That's usually how our schedule is.

So if they're able to come back in the morning because they had a morning ultrasound the day before, we can initiate that cervical dilation process earlier in the morning and give it the 6 hours that we would like it to have to take effect and be able to safely complete the procedure at the end of the day. So we offer that up through 17 weeks and 6 days.

Q. With respect to these procedures up to 17 weeks and 6 days, you're not administering digoxin with respect to those procedures?

A. Correct.

MR. STEPHENS: Objection, leading.

THE COURT: Sustained.

Q. (BY MR. LAWRENCE) Okay. With respect to procedures below 17 weeks and 6 days, are you attempting fetal demise?

A. No, we are not.

Q. And under what circumstances would a procedure below 17 weeks and 6 days take two days in addition to the ultrasound?

A. So if the patient returns to begin her procedure and her appointment is beyond a certain time of day, usually 10:00 or 11:00 in the morning, if her return time is later than that, we

16:35:00 don't feel like we can assure enough time for adequate dilation
16:35:06 with the remainder of the clinic day. And so we'll place those
16:35:10 dilators and allow them to work overnight and ask the patient
16:35:14 to return on a third day to have her D&E procedure completed.
16:35:20 Q. And what's about -- what's the ratio of patients that
16:35:23 receive the one-day versus the two-day procedure?
16:35:28 A. About half. About half, or 50 percent, of our patients
16:35:31 between the 15 weeks and 17 weeks and 6 days are getting the
16:35:35 one-day procedure right now.
16:35:37 Q. What would be the impact on the timing of completion --
16:35:41 completing the procedure if you were to have to attempt to
16:35:44 demise in each of those cases?
16:35:46 A. If we were required to induce demise with a method like
16:35:53 the digoxin injection that takes 24 hours to be effective, then
16:35:57 all of these patients that are currently getting one-day
16:36:00 procedures would now have to come back for two-day procedures,
16:36:04 not including the ultrasound, of course.
16:36:06 Q. Dr. Wallace, are there alternatives to digoxin for causing
16:36:16 fetal demise?
16:36:16 A. You mentioned umbilical cord transection. That's also
16:36:22 used induce demise. And I know that some subspecialists do use
16:36:25 potassium chloride or KCl injections to induce demise.
16:36:30 Q. Let's discuss umbilical cord transection. Could you --
16:36:36 could you rely on umbilical cord transection as a means of
16:36:41 complying with SB 8?

16:36:43 A. No. I don't think that I could rely on it. Much like a
16:36:47 case that I mentioned, there are clinical situations that arise
16:36:51 where the cord is completely inaccessible and I wouldn't be
16:36:55 able to safely reach the cord and rely on that as my means for
16:37:00 demise without violating the law and making myself subject to
16:37:06 criminal prosecution for proceeding with the procedure anyways.
16:37:12 Q. Are there any added risks to patients if you attempt an
16:37:20 umbilical cord transection?
16:37:22 A. There is. You know, the umbilical cord, even if it's not
16:37:28 as extreme as the case I mentioned where the fetus was just
16:37:32 completely obstructing my path to reach the cord, anytime you
16:37:36 pass an instrument into the uterine cavity, your carrying an
16:37:40 additional risk of infection as well as the potential for harm
16:37:44 by causing perforation or injury to the uterus with every pass
16:37:47 of the instrument.
16:37:48 And so, if we are required to perform umbilical cord
16:37:53 transection on every patient and need to make additional passes
16:37:57 to identify and grasp that umbilical cord, there's a very
16:38:03 good -- you know, it significantly increases the risk because
16:38:07 we're increasing the number of times we're passing an
16:38:09 instrument into this woman's body. And that carries the
16:38:13 increased risk of infection or injury.
16:38:14 I can also imagine that it would be very difficult at
16:38:19 times to know when we go to reach for the cord if indeed it is
16:38:24 only the cord or if it's another part of the fetus, especially

16:38:28 at lower gestational ages. You know, an extremity may be
16:38:36 grasped instead inadvertently, and then that's a violation of
16:38:39 the law. And so I would be very fearful of subjecting myself
16:38:43 to criminal prosecution if I was relying exclusively on
16:38:46 umbilical cord transection.
16:38:50 Q. You could end up violating the Act by attempting the
16:38:53 umbilical cord transection?
16:38:56 MR. STEPHENS: Objection. Calls for speculation and
16:38:58 legal conclusion.
16:38:58 THE COURT: No. Overruled.
16:39:00 A. Yes. By attempting the umbilical cord transection, I
16:39:05 think it is very plausible that we could inadvertently violate
16:39:09 SB 8.
16:39:16 Q. And what other methods of causing demise are you aware of?
16:39:20 A. The potassium chloride, the KCl injection.
16:39:25 Q. And could you rely on KCl injections to comply with SB 8?
16:39:31 MR. STEPHENS: Objection. Lack of foundation.
16:39:34 THE COURT: Overruled.
16:39:36 A. I could not rely on it. It's not a procedure that I am
16:39:41 trained or equipped to offer.
16:39:44 Q. So you never learned how to use KCl injections to cause
16:39:50 demise?
16:39:50 A. No. I was never trained to do that.
16:39:53 Q. Not trained in medical school?
16:39:55 A. No.

16:39:56 Q. Not trained in your residency?
16:39:58 A. No.
16:39:58 Q. Not trained in your fellowship?
16:40:01 A. No. I was not trained in fellowship. I observed maybe
16:40:06 one case of an MFM performing it, but it was not something --
16:40:10 we were not invited to train to do that procedure.
16:40:13 Q. Now, have you heard of any serious complications that can
16:40:16 arise from using KCl?
16:40:19 MR. STEPHENS: Objection, hearsay.
16:40:20 THE COURT: Overruled.
16:40:22 A. Yes. The case I mentioned earlier of the probable
16:40:26 inoculation of the pregnancy from the pass of the needle to
16:40:31 inject KCl that went through the bowel and into the uterus and
16:40:35 into the pregnancy and likely the source of that infection.
16:40:39 KCl is also a very powerful medication which, if it's
16:40:44 done incorrectly, could in fact be lethal to the woman. And I
16:40:48 have read in the literature that an improperly administered KCl
16:40:54 injection has led to at least one cardiac arrest.
16:40:57 Q. So even if you could be trained to use it, would you be
16:41:00 comfortable subjecting your patients to injections of KCl to
16:41:05 cause fetal demise?
16:41:06 A. I -- I feel that the risks are more -- you know,
16:41:10 significantly more than the risk that even digoxin carries.
16:41:14 And subjecting my patients to an injection when I don't feel
16:41:17 like there's any medical need for it, I would not be

16:41:20 comfortable with. I think it would be inappropriate, and it
16:41:23 would be experimenting on patients unnecessarily.
16:41:26 Q. Aside from the D&E procedure, are there any other
16:41:43 alternative ways to terminate a second-trimester pregnancy?
16:41:47 A. Induction abortion is an option in inpatient facilities or
16:41:54 places like hospitals where patients can be admitted overnight.
16:41:57 Q. Can you rely on induction of labor as a method of
16:42:03 complying with SB 8 in lieu of D&E procedures?
16:42:08 A. We cannot offer induction at our facility. We're an
16:42:12 outpatient ambulatory surgical center, so we can't admit
16:42:17 patients overnight. Induction abortion can take from hours to
16:42:20 days, most commonly days. So that's not a procedure we could
16:42:25 offer. I also don't know of any hospitals in the state of
16:42:28 Texas that routinely offer induction abortion.
16:42:51 Q. Now, is it possible to be certain that you can cause
16:42:55 demise before you start a procedure?
16:43:01 A. No. I -- I can't say with 100-percent certainty that I
16:43:06 will always be able to induce demise before completing -- you
16:43:11 know, before beginning the evacuation process with the forceps.
16:43:15 Q. Why can't you be certain?
16:43:17 A. For the reasons that we've been over today I can't be
16:43:21 certain. Digoxin is -- is not 100-percent, and then relying on
16:43:28 umbilical cord transection is also not a fail-safe way of
16:43:33 ensuring that you could achieve demise before proceeding with
16:43:36 evacuation using forceps.

There are many times when the cord is going to be inaccessible or it would be unsafe or subject the patient to additional risks and harm to offer additional interventions, such as a second digoxin or, you know, looking for that cord, trying to reach that cord, when perhaps it's a dangerous choice to make because of how the instruments would need to be used to get that cord down.

Q. And so are you going to know in advance of beginning the procedure which of those procedures your going to be unable to cause demise?

A. No. There's no reliable way to tell from the ultrasound in advance or a patient's history or any other kind of evaluation whether or not our methods to induce demise are going to be successful.

Q. And so what risk does SB 8 put you to if you're to start a procedure without knowing whether you're going to be able to cause demise?

A. I'm -- it would put myself and other providers at risk for prosecution if we were to begin a procedure that we couldn't be certain that we'd be able to complete without violation of the law. We would not be able to offer services the way we do now. I don't know how -- I don't know what that would look like.

And I think it would significantly impact access for patients. The burdens that will be placed on patients --

MR. STEPHENS: Objection. Lack of foundation as to

16:45:09 access and burdens, Your Honor.
16:45:11 THE COURT: Well, I'm not sure that's the right
16:45:14 objection, but I was getting a narrative answer. Why don't you
16:45:17 rephrase your question and break it up.
16:45:20 Q. (BY MR. LAWRENCE) Would you -- would you and your
16:45:24 colleagues be willing to continue to provide D&E procedures at
16:45:31 the risk of prosecution?
16:45:33 Let's just start with you, Doctor.
16:45:36 A. I don't know. I -- right now I would not want to begin
16:45:46 any procedure that I couldn't be 100-percent certain of causing
16:45:50 demise. And that's the case. I can't be 100-percent certain,
16:45:53 so I would not want to offer these procedures where I could
16:45:56 subject myself to criminal prosecution.
16:45:59 Q. We'll leave it with you, Doctor.
16:46:04 **CROSS-EXAMINATION**
16:46:04 **BY MR. STEPHENS:**
16:46:04 Q. Good afternoon, Dr. Wallace. How are you?
16:46:07 A. I'm good. How are you?
16:46:08 Q. Dr. Wallace, isn't it true that you don't know when you
16:46:11 start a D&E procedure yourself whether you'll be able to
16:46:14 complete it?
16:46:16 A. I'm sorry. Could you restate the question?
16:46:18 Q. Sure. You just testified that you wouldn't potentially
16:46:21 start a procedure after -- if SB 8 is upheld because you
16:46:25 wouldn't know if you could complete it safely, right?

16:46:28 A. No. I'm sorry if I misspoke. What I intended to say was
16:46:32 that I wouldn't start a procedure that I couldn't be certain
16:46:37 that I could finish without violating the law. I know that I
16:46:40 could finish the procedure safely and in the best interest of
16:46:45 my patient, but not necessarily under the law the way this one
16:46:47 is written.
16:46:48 Q. Okay. It's -- what I'm getting at is that every D&E
16:46:51 procedure that you start now, you don't know if you'll
16:46:55 currently be able to safely complete it, right?
16:46:57 A. I know that I can provide safe care and assure that my
16:47:02 patient has completion of her procedure.
16:47:04 Q. And some D&E procedures aren't completed because of
16:47:07 various complications; is that right?
16:47:10 A. I personally haven't had a procedure that I have not been
16:47:14 able to complete at our facility.
16:47:16 Q. Okay. And that happens in your knowledge and experience
16:47:19 as a physician providing abortions, right, that there are, for
16:47:19 example, transfers to hospitals for complications, right?
16:47:22 A. There are rare instances where there are transfers.
16:47:25 Q. So some D&E procedures are not completed at -- at clinics;
16:47:29 is that right?
16:47:30 A. I can't think of specific cases that I actually know
16:47:35 about. In my experience at our facility, we haven't
16:47:38 transferred anyone with an incomplete D&E procedure.
16:47:42 Q. Okay. Let's talk a little bit about the D&E procedure

16:47:45 itself. You testified that you use instruments, forceps, to
16:47:48 remove what you call the "pregnancy tissue"; is that right?
16:47:52 A. Yes.
16:47:52 Q. And you said, I believe, that 15 weeks and up you
16:47:55 typically use forceps; is that right?
16:47:57 A. That's correct.
16:47:58 Q. What kind of forceps do you use?
16:48:01 A. We have several different types of instruments. We have
16:48:06 one called the Van-Lyth. We have one called the Sopher, and
16:48:10 one called the Bierer.
16:48:12 Q. So the Sopher clamp -- is it called a Sopher clamp as well
16:48:16 as a Sopher forceps?
16:48:16 A. Sopher forceps.
16:48:17 Q. Okay. So that's something you would use to perform the
16:48:19 procedures that are at issue in Senate Bill 8; is that right?
16:48:23 A. That is an instrument that I use, yes, for the D&E
16:48:26 procedure.
16:48:26 Q. Okay. And the D&E procedure involves, as you described
16:48:30 it -- I believe, the word you've used "disarticulation"; is
16:48:35 that right?
16:48:36 A. I don't think I used that word today.
16:48:38 Q. Okay. At your deposition did you describe it as
16:48:42 disarticulation?
16:48:42 A. I may have, yes.
16:48:43 Q. Is that another way of saying that you would remove parts

16:48:46 of the fetus using the forceps?
16:48:48 A. Yes. You separate the fetal tissue in order to remove it
16:48:53 safely in smaller pieces through the cervix.
16:48:55 Q. Okay. And so, if you don't use digoxin, the fetus is
16:49:02 alive when that occurs; is that right?
16:49:04 A. Well, it's not alive outside of the womb or the uterus.
16:49:09 There is cardiac activity until the procedure has begun.
16:49:12 Q. Okay. So fetal demise has not occurred if digoxin or
16:49:15 another means of causing fetal demise has not been employed
16:49:19 before you start the procedure, right?
16:49:21 A. Correct.
16:49:22 Q. Okay. I would like to show you what's been marked as
16:49:31 Defendant's Exhibit 23. Does this look to be a pair of
16:49:35 Sopher forceps or Sopher clamps to you?
16:49:38 A. It does look similar. It's a much longer handle and
16:49:41 heavier device than the ones we use at our clinic.
16:49:44 Q. Okay. So this does appear to be a pair of Sopher forceps,
16:49:48 just not the specific ones you might use; is that right?
16:49:54 A. It looks similar. I would -- I can't verify exactly from
16:49:58 this distance, but it looks that way.
16:50:01 Q. What are the differences between the ones you use and the
16:50:04 ones I'm holding here?
16:50:05 A. So the ones we use are a little bit lighter weight.
16:50:08 They're not quite such a heavy instrument. That one looks
16:50:11 pretty thick, and that's longer than the ones we use,

16:50:13 typically, from what I can tell from here.
16:50:15 Q. Are the teeth the same?
16:50:17 A. I can't tell that from here. I'm sorry.
16:50:20 MR. STEPHENS: Your Honor, may I approach?
16:50:21 THE COURT: You may. And let me say this to the all the lawyers: In my court you don't have to ask before you approach a witness. If you need to approach the witness, go to the witness, complete as quickly as possible what you need to do immediately before the witness, and then return to the podium. It goes quicker that way. And if I think you're badgering the witness, I will not hesitate to say something about it.
16:50:48 MR. STEPHENS: Understood, Your Honor.
16:50:51 Q. Dr. Wallace, I've brought to you what has been marked as Defendant's Exhibit 23. Do you have that in front of you?
16:50:57 A. I do.
16:50:57 Q. Okay. And we were talking about the forceps that you use to perform the procedures at issue in this lawsuit. And you, I believe, testified the ones you use are slightly smaller than that; is that right?
16:51:08 A. Yeah. It is very similar in appearance and shape, but the ones we use I believe are a little bit smaller.
16:51:13 Q. About how much smaller?
16:51:17 A. Where the gold handle begins, I believe ours the length only go to that demarcation between the silver and the gold.
16:51:24
16:51:28

16:51:31 And so that the actual finger holes would be more at that
16:51:35 level. And then the entire instrument is of a heavier weight
16:51:40 meaning it's thick -- the metal itself is thicker, right. And
16:51:45 the bottom part of the forceps here looks to be slightly larger
16:51:49 than the ones we use, although it's the same shape as the
16:51:53 Sophers that we have.
16:51:53 Q. When you say the bottom part, do you mean the part --
16:51:57 A. Yeah. The circular part.
16:51:59 Q. -- that have the teeth on it?
16:52:00 Are they called teeth?
16:52:01 A. Yeah. Some people call them teeth on the inside edge
16:52:06 there.
16:52:06 Q. Okay. So I'd also like to show you what's been marked as
16:52:10 Defendant's Exhibit 24. Does this appear to you to be a copy
16:52:17 of the Bierer forceps or the Bierer clamps?
16:52:21 A. I can't tell from here. I apologize.
16:52:31 This does look to be the shape of the Bierer.
16:52:33 Q. Is it *beer-er*?
16:52:34 A. B-i-e-r-e-r, Bierer.
16:52:36 Q. Okay. So what is the difference between the Bierer
16:52:39 forceps and the Sopher forceps?
16:52:43 A. Primarily the shape of the circular end as well as the
16:52:46 gripping surface.
16:52:47 Q. Okay. And what's the -- what do you mean by the gripping
16:52:51 surface?

16:52:52 A. I believe that's what you're calling the teeth.
16:52:54 Q. Okay. And how is the shape different between Exhibit 23
16:52:59 and Exhibit 24?
16:53:01 A. Twenty-three has a much finer scale to the gripping
16:53:06 surface compared to 24.
16:53:08 Q. Okay. So in what type of procedure would you use a Sopher
16:53:15 clamp versus a Bierer clamp?
16:53:17 A. So I use Sopher forceps for procedures at 16 weeks and
16:53:21 17 weeks, typically, and I begin using the Bierers at 18 weeks
16:53:27 up through 21 weeks and 6 days.
16:53:33 Q. Why would you use the Sophers at procedures between 16
16:53:36 and 17 but the Bierers 18 and above?
16:53:39 A. So the Sophers that we use are much smaller, like I
16:53:43 mentioned before. Our Bierers are also smaller than the ones
16:53:46 you have here. The circular part of the Sophers that we have,
16:53:50 because it is smaller in scale, is more appropriate for a
16:53:54 smaller pregnancy or at lower gestation. That's why I choose
16:53:59 to use it at 16 or 17. It means you don't have to require
16:54:02 additional cervical dilation. You can pass the instruments and
16:54:05 remove the fetus very safely through a smaller cervical
16:54:09 opening. That's why I choose to use the Sophers at that
16:54:13 gestational age. At 18 weeks --
16:54:15 Q. Go ahead.
16:54:16 A. Since you asked?
16:54:18 Q. Yeah. Go ahead.

16:54:19 A. At 18 weeks I begin use the Bierers because the fetal
16:54:23 tissue is larger, and I find that it facilitates the evacuation
16:54:28 of the fetal tissue more with the Bierers forceps.
16:54:32 Q. Okay. So I do want to talk about what you're using the
16:54:35 forceps for. And you said that the larger Bierer forceps
16:54:40 facilitate the evacuation of the pregnancy tissue; is that
16:54:44 right, or the tissue?
16:54:45 A. Yep.
16:54:45 Q. Okay. The pregnancy tissue is the fetus; is that right?
16:54:49 A. Yes.
16:54:49 Q. It includes the fetus?
16:54:51 A. Includes the fetus as well as the placenta and amniotic
16:54:56 sac.
16:54:56 Q. So let's talk about a procedure at 18 weeks, right?
16:54:59 That's a procedure in which you would be using the Bierer
16:55:02 forceps, right?
16:55:04 A. Typically, yes.
16:55:05 Q. As part of that procedure, you would insert the Bierer
16:55:08 forceps into the uterus; is that right?
16:55:10 A. Yes.
16:55:11 Q. And the fetus, at the time you insert the Bierer forceps,
16:55:17 maybe intact; is that right?
16:55:19 A. Yes.
16:55:20 Q. And it may be alive; is that right, in the sense that it
16:55:23 may have a heartbeat?

16:55:26 A. It may have a heartbeat.
16:55:27 Q. So fetal demise would not occur at that time?
16:55:30 A. Correct.
16:55:31 Q. So you would insert the Bierer forceps in the uterus, and
16:55:36 would you open the forceps?
16:55:37 A. The forceps are opened first.
16:55:40 Q. And then what would you do next? Close the forceps?
16:55:43 A. Yes. To grasp the fetal tissue.
16:55:46 Q. Okay. And is the "fetal tissue" part of the fetus?
16:55:49 A. Yes. That's what I mean.
16:55:50 Q. So a leg, potentially?
16:55:52 A. Potentially.
16:55:53 Q. Arm, potentially?
16:55:54 A. Yes.
16:55:55 Q. Torso, potentially?
16:55:57 A. Uh-huh, yes.
16:55:58 Q. The spine of the fetus?
16:55:59 A. Yes.
16:56:00 Q. Okay. And then once the -- once the forceps -- the Bierer
16:56:04 forceps are closed on the fetal part, what do you do next?
16:56:10 A. And then we remove that portion of the fetal tissue
16:56:14 through the cervix.
16:56:15 Q. Okay. And to remove it, do you pull?
16:56:18 A. There often is a pull or another motion with the forceps
16:56:24 to detach one part of the tissue from the other in order to

16:56:28 remove a smaller segment of the fetus.
16:56:31 Q. Okay. So if you were, for example, to have the Bierer
16:56:35 forceps on an 18-week fetus on its leg, you would pull and
16:56:40 remove the leg from the woman's body; is that right?
16:56:43 A. Not from the woman's body. From the fetal body.
16:56:47 Q. From the fetus, and then you would continue to pull; is
16:56:50 that right?
16:56:50 A. Yes. That is the best way to remove something from inside
16:56:54 of the cavity, is to actually pull it out through the opening.
16:56:57 Q. Okay. So you would remove it from the woman's body; is
16:57:00 that right?
16:57:01 A. We are removing the fetus and pregnancy from the woman's
16:57:04 cervix to remove it from her body, yes.
16:57:07 Q. So in example we are talking about, once you remove the
16:57:10 leg with the forceps, the Bierer forceps, what do you do with
16:57:13 it?
16:57:13 A. So we have a receptacle -- a surgical receptacle to
16:57:19 collect the pregnancy tissue.
16:57:21 Q. Okay. So -- so is that -- is the receptacle a Pyrex dish?
16:57:28 A. No, it is not. It's a stainless steel circular bowl,
16:57:37 generally.
16:57:37 Q. So you would place the leg in the circular stainless bowl;
16:57:41 is that correct?
16:57:41 A. Yeah. We usually have, you know, another layer of -- we
16:57:46 call them Chux -- like the disposable cotton-lined material to

16:57:52 kind of collect the tissue into the bowl.
16:57:57 Q. Okay. So -- so at that point, after you've -- after you
16:58:01 removed the leg, would you then reinsert the Bierer forceps
16:58:06 into the uterus again?
16:58:08 A. Yes. We would continue to make passes through with the
16:58:11 instrument until the entire fetus was removed successfully.
16:58:15 Q. Okay. And in the case we're talking about, an 18-week
16:58:19 fetus where fetal demise had not occurred before you started
16:58:23 the extraction procedure, the fetus was alive at the time that
16:58:27 you removed the leg; is that right?
16:58:29 A. So in this scenario, without digoxin, there would have
16:58:34 been a heartbeat before removing the first part of the fetus.
16:58:37 Q. Okay. And fetal demise would be caused by removing the
16:58:48 leg; is that right, in the example we're talking about?
16:58:50 A. Usually, yes. I mean, there will not be -- as the tissue
16:58:55 is removed, it can take any kind of period of time. The same
16:58:59 way with umbilical transection. You can perform that and it
16:59:02 may take any period of time, anywhere from one to 11 minutes,
16:59:05 before there is no longer any cardiac activity. And so when
16:59:08 you are performing a D&E, as you begin to remove the tissue,
16:59:13 the cardiac activity may stop very quickly after you begin the
16:59:17 process, or it may take a different amount of time.
16:59:22 Q. So the cardiac activity would stop because the fetus
16:59:26 bleeds to death; is that right?
16:59:27 A. I don't think that's actually totally accurate. There is

16:59:31 usually -- it's not as though there is appreciable or
16:59:36 significant blood loss that we observe. We remove the fetus
16:59:41 very expeditiously and so, generally speaking, there -- the
16:59:47 actual removal of the entire fetal tissue occurs before we make
16:59:54 note of any heart activity.
17:00:00 Q. Make note of it in the chart? Is that what you mean?
17:00:02 A. Yeah. There -- it's not required to note in the chart.
17:00:07 Q. Okay. Could the fetus survive after you've removed its
17:00:11 leg from its body?
17:00:12 A. No. At this gestation, the fetus cannot survive outside
17:00:18 the uterus at all.
17:00:18 Q. So while the fetus is inside and has a heartbeat, after
17:00:21 you use the Bierer clamps to remove its leg, are you testifying
17:00:26 the fetus can survive after that?
17:00:28 A. No, I'm not. That's not my intention. It would be --
17:00:35 yes, it is a lethal act onto the fetus.
17:00:37 Q. Okay. So the lethal act is caused by the use of the
17:00:41 forceps and the removal of a body part; is that correct?
17:00:44 A. Yes.
17:00:49 Q. When you get to the skull at 18 weeks. Is the skull
17:00:52 larger than the woman's cervix?
17:00:53 A. Not in all cases. In many cases, because we are not
17:00:58 requiring cervix -- the cervix to dilate an extensive amount,
17:01:04 in many cases, the skull can be larger than the cervical
17:01:07 opening and, in other cases, it's not.

17:01:10 Q. When the fetus's skull is larger than the woman's
17:01:17 cervix -- let's say at an 18-week procedure -- you would use
17:01:25 the Bierer forceps to crush the skull; is that right?
17:01:28 A. We collapse the calvarium, yeah.
17:01:31 Q. Is that the same thing as crushing the skull with the
17:01:34 forceps?
17:01:35 A. I prefer the word "collapse," but it is probably a similar
17:01:38 motion.
17:01:39 Q. Okay. For a non-doctor like me, that would be a laymen's
17:01:42 term for it?
17:01:43 A. Yeah. It could be. I think that it depends on how you
17:01:48 use the word.
17:01:49 Q. Understood. Do you know how long after the leg is removed
17:01:59 in the example that we were talking about that fetus's heart
17:02:05 could continue to beat?
17:02:06 A. I don't know.
17:02:07 Q. Okay. When you use digoxin in the procedure, the type of
17:02:19 procedure we were just describing, the fetus would be dead
17:02:23 before you perform the dismemberment portion of the procedure;
17:02:27 is that right?
17:02:28 A. In most cases, yes. When we have confirmed that there is
17:02:32 no heart activity after digoxin, then, yes, demise would have
17:02:39 occurred.
17:02:39 Q. Okay. So you wouldn't be, in those cases where digoxin is
17:02:43 effective, dismembering a live fetus with Sopher forceps or

17:02:48 Bierer forceps; is that right?
17:02:48 A. When digoxin is effective, it is a demised fetus that
17:02:52 we're removing.
17:02:53 Q. Since you mentioned effectiveness -- and I'll come back to
17:02:56 this later. In your experience, your personal experience,
17:03:00 digoxin is highly effective at causing fetal demise, right?
17:03:04 A. Probably up to 98 percent, in my experience.
17:03:07 Q. Right. And isn't it true that you've done between around
17:03:12 150 and 200 digoxin injections?
17:03:15 A. I would say at least that many, uh-huh.
17:03:17 Q. Okay. Potentially more than that?
17:03:19 A. Potentially more, yes.
17:03:21 Q. Okay. So 1 to 2 percent of that would mean, what, two to
17:03:24 three cases in your personal practice where digoxin hasn't
17:03:27 caused fetal demise?
17:03:28 A. Yes. I think previously I stated about one or two times a
17:03:32 year. So, over the course of four or five years, a couple of
17:03:35 more than that.
17:03:36 Q. Okay. And we'll come back to the effectiveness. Before
17:03:42 we go to that, I'd like to talk about something else you said.
17:03:44 THE COURT: Let me ask you a question. How much more
17:03:47 do you have, Mr. Stephens?
17:03:49 MR. STEPHENS: A lot.
17:03:50 THE COURT: Okay. Then I think we will not try to
17:03:53 press through and finish this witness today because I suspect

17:03:56 there will also be some redirect of the witness. So at this
17:04:00 time we'll take our evening recess, and we'll be in recess
17:04:03 until 9 o'clock in the morning.
17:04:12 (End of transcript)

UNITED STATES DISTRICT COURT)

WESTERN DISTRICT OF TEXAS)

I, Arlinda Rodriguez, Official Court Reporter, United States District Court, Western District of Texas, do certify that the foregoing is a correct transcript from the record of proceedings in the above-entitled matter.

I certify that the transcript fees and format comply with those prescribed by the Court and Judicial Conference of the United States.

WITNESS MY OFFICIAL HAND this the 11th day of November 2017.

/S/ Arlinda Rodriguez
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