

February 22, 2011

Re: House Bill 78

Dear members of the House of Representatives Committee on Healthcare,

I have had been asked to provide testimony to you today in support of House Bill 78, which proposes to limit abortions performed in the second trimester of pregnancy after fetal viability has been established with the exception of medical necessity. This testimony is based on my 15 years of experience as a practicing obstetrician and gynecologist with an active obstetric practice.

I will briefly summarize the important facts of the bill so that I can highlight questions that arise from the bill and gives explanation or further definition to these terms. The bill would propose that a woman who presents for abortion in a non-emergent situation should be evaluated for the estimated gestational age (EGA) of the pregnancy. If the EGA is determined to be greater than 20 weeks, then tests should be performed to determine if the unborn child is viable. If the unborn child is not viable, then the abortion would be legal. However, other state regulations and laws may still apply. If the child is viable, then the abortion is illegal unless there is a medical necessity as defined in the bill and can only be performed after the medical necessity is confirmed in writing and supported by a second physician. It also stipulates that the abortion must be performed in a hospital or other facility with neonatal care and that a second physician be present to care for the child.

Several questions arise from the wording of this bill. These questions include a definition of viability, tests that determine viability, the best methods available for delivery which provide the greatest opportunity for survival and medical necessity.

Stedman's Medical Dictionary defines the viability as "capability of living; the state of being viable; usually connotes a fetus that has reached 500 g in weight in 20 gestational weeks". The limits of viability is defined as "survival capability; capable of extra uterine survival." While these are general definitions, they may not translate into functional definitions of viability. Viability is dependent on a number of factors including gestational age, estimated fetal weight, number of fetuses, and previous medical interventions. All of these factors need to be considered individually and collectively for proper medical decision-making.

The estimated gestational age is a key determinant in the survivability of a very premature infant. Over the past 40 years, the limit of viability has decreased one week per decade. The following table represents survival rates without major disability based on estimated gestational age (Table 1).

Table 1

Gestational age	Survival Without Major Disability
22 weeks	0%
23 weeks	less than 10%
24 weeks	20 to 25%
25 weeks	40 to 45%

(Source: Gabbe, Stephen G. et al, "Obstetrics: Normal and Problem Pregnancies" pages 558 – 59)

Survival can also be affected by estimated fetal weight. In table 2, the survival rates for infants based on estimated fetal weight and gestational age is given.

Table 2

Estimated Gestational Age	Estimated Fetal Weight	Survival Rates
28 weeks	> 1000 g	> 90%
26 to 27 weeks	> 1000 g	85%
25 weeks	700 to 800 g	70 to 75%

(Source: Gabbe, Stephen G. et al, "Obstetrics: Normal and Problem Pregnancies" pages 558 – 59)

At less than 24 weeks estimated gestational age, < 50% of neonatologists believe care is clearly beneficial but at 25 weeks, most neonatologist believe that care is clearly beneficial beyond that point¹. According to Gabbe's text, it would be "a reasonable approach to intervene at greater than 25 weeks and not intervene at less than 23 to 24 weeks gestation with a 23 to 25 weeks based on an individual case-by-case basis". In Williams Obstetrics (2010, pages 807-809), they agree that "it is generally accepted that births before 26 weeks gestation, especially those weighing less than 750 grams are at the current threshold of viability". They also concur with current guidelines developed by the American Academy of Pediatrics that it is "appropriate not to initiate resuscitation for infants younger than 23 weeks gestation or to those whose birth weight is less than 400 grams". The policy at Parkland Hospital, in Dallas Texas, is that "all fetal indications for cesarean delivery in more advanced pregnancies are practiced in women at 25 weeks. Cesarean delivery is not offered for fetal indications at 23 weeks. At 24 weeks, cesarean delivery is not offered unless the weight is estimated at 750 g or greater."

Other factors that can affect survival include number of fetuses, gender and previous medical interventions. Singleton pregnancies have greater survival at earlier gestational ages. Female infants tend to fare better. Delivery at a tertiary care and use of antenatal corticosteroid therapy to enhance fetal lung maturity also improve survival.

From this data it would be appropriate to consider the limits of viability at a minimum of 23-24 weeks gestational age and estimated fetal weight greater than 400 to 500 g. The other factors should be taken into consideration when discussing care with the parents.

¹ Gabbe, Stephen G., et. al., "Obstetrics: Normal and Problem Pregnancies", Elsevier Press. 2009, pgs.558-59.

The above discussion makes it apparent that the two most important factors in determining viability are estimated fetal weight and estimated gestational age. Ultrasound is the only test that can be performed which provides both of these estimates. Accuracy of the gestational age is dependent upon the date of the first ultrasound performed. If performed within the first trimester; the range of error may be only 5 to 7 days. As gestational age progresses, the degree of error in calculated EGA increases. At the threshold of viability, the range of error based on fetal measurements can be 11-15 days. It is common practice in modern obstetrics for most patients to have an early first trimester dating ultrasound and/or second trimester ultrasound to assess fetal anatomy. The estimated fetal weight can be predicted with an error rate of less than +/- 10% in the hands of a good sonographer. Amniocentesis is not a useful test for viability at these early gestational ages.

When considering methods for delivery, there are four options. The first option would be to proceed with induction of labor with the intention of having a vaginal birth. A second option would be to proceed with cesarean section. As stated above, the indications for cesarean section should be based on gestational age and estimated fetal weight. Maternal medical conditions should also be considered. The final two options include dilation and evacuation (D & E) and dilation and intact extraction (D & X, "partial-birth abortion"). These last two options would not be consistent with the language of this bill. Also, the D&E and D&X procedures are associated with greater risks of complications (2%) including bleeding, infection or sepsis, damage to the cervix, perforation of the uterus, damage to other organs, and death. Late term abortion may also be associated with incompetent cervix or premature delivery in subsequent pregnancies.

Late-term surgical procedures aimed at pregnancy termination would not be consistent with the "Health and Ethics Policies of the AMA House of Delegates" which states "the AMA recommends that abortions not be performed in the third trimester except in cases of serious fetal anomalies incompatible with life. Although third trimester abortions can be performed to preserve the life or health of the mother, they are, in fact, generally not necessary for those purposes." Abortions for fetal abnormalities comprise only 2% of all late-term abortions. They go on to say that in cases of maternal conditions that would necessitate ending the pregnancy, these "can be accommodated without sacrifice of the fetus, and the near certainty of the independent viability of the fetus argues for ending the pregnancy by appropriate delivery." Medical indications which might necessitate early delivery can include preeclampsia, Marfan's syndrome with aortic root involvement and complicated coarctation of the aorta as well as primary pulmonary hypertension. These instances are extremely rare.

Based on the low number of pregnancies complicated by fetal abnormalities incompatible with life, and the rare instances of medical complications compromising the mother's health it would appear that the majority of late-term pregnancy terminations are for elective reasons. Even in situations where medical conditions complicate the pregnancy, they can be managed to optimize the outcome for both mother and child. Abortion does not cure any medical conditions. Medical conditions of the mother may be altered or exacerbated by the current pregnancy. Performing an abortion may alleviate these

changes and alter maternal prognosis, but the mother is still left with her condition. Therefore, the only reasonable methods for pregnancy termination after viability would be vaginal or cesarean section delivery.

In summary, it is my opinion that viability is best determined by accurate ultrasound determination of estimated fetal weight and gestational age. The current consensus would suggest that in pregnancies greater than 23-24 weeks with an estimate of fetal weight greater than 500 g, it is appropriate to initiate life-sustaining care. Vaginal or cesarean delivery would be the preferred methods for management of the pregnancy. Finally, surgical abortion procedures are not indicated for delivery after viability has been established and should be strongly discouraged due to the higher complication rates.