Pre-planning is key to achieving the most optimal clinical outcomes for patients with multiple challenging risk factors or individual characteristics.

In a specialty such as obstetrics, we are often faced with a complex patient who requires us to be proactive in identifying risk factors early in the course of care. This type of preparedness is necessary to prevent adverse events and to identify individual risk factors that would best guide us in management plans for a patient’s possible hospital-acquired conditions or in adverse event prevention plans to achieve high-quality outcomes.

Obstetrics poses unique challenges because of the possible risks of venous thromboembolism (VTE) and unknown thrombophilia, as well as other myriad risks, including those associated with morbid obesity. Anticipating and overcoming these challenges is a necessary action that requires forethought, planning, communication, and readily available tools, equipment, and resources.

**Biophysical Profile**

This measure of fetal well-being is scored based on five criteria:

- Fetal movement.
- Volume of amniotic fluid.
- Fetal tone.
- Fetal breathing.
- Non-stress test.

Each criterion is given a max score of 2, and the highest possible score is 10. A score of 4 warrants labor induction if gestational age is

> 32 weeks.

Here is one example of a unique, complex, obstetrical case involving a super morbidly obese (BMI > 67) patient who underwent a cesarean delivery with anesthesia, and had other complex medical issues:

*M is a 36-year-old woman, admitted at 37 and 3/7 weeks’ gestation for a primary cesarean delivery because of a breech presentation. This is M’s fourth pregnancy. Two of those ended with term vaginal deliveries, and one pregnancy was spontaneously miscarried. Her living children are 7 and 12 years of age, and her miscarriage occurred two years previously.*

*She was originally scheduled for delivery at 39 weeks, but a biophysical profile score (being done routinely because of her risk factors) of 4/10, in addition to patient reports of decreased fetal movement, prompted early delivery (Box). Upon admission, she denied leakage of fluid, vaginal bleeding, or contractions. External fetal monitoring was not successful because of the patient’s size. The case of M was complex because of her high BMI, advanced maternal age, and gestational diabetes that required insulin to control blood glucose levels. The patient’s BMI of 67 puts her in the category of having super-morbid obesity (BMI > 50). This classification puts her at significant risk for complications, including increased risk of VTE, infections, difficulty with anesthesia, respiratory compromise, hypertension, pre-eclampsia or eclampsia, large for gestational age infant, cesarean delivery, gestational diabetes, and a five-minute Apgar score of less than 7.*

*Earlier in her pregnancy, first trimester fingersticks were initiated and revealed consistently high fasting blood glucose levels. For this reason, coupled with her super-morbid obesity, she was started on NPH insulin nightly at 16 weeks’ gestation. Although she frequently missed appointments and...*
forgot to bring her insulin logs, she stated that her glucose levels were well-controlled. Because this patient had numerous risk factors for adverse outcomes, she was presented to the high-risk OB team prenatally so that a comprehensive plan of care could be developed prior to admission. This individualized plan of care involved use of a bariatric care checklist, which includes additional OR equipment, higher dosing for antibiotics and epidural medications, additional personnel in the OR to assist with transferring and retracting, maintenance of proper positioning to maintain adequate airway, and use of screening tools for hemorrhage risk and VTE prevention. Another important part of this plan of care was a consult with anesthesia prior to admission. Their recommendations included early admission, the use of continuous spinal epidural, ultrasound for landmark identification, long spinal epidural needles and introducers, GlideScope, a trial of supplemental oxygen with room air prior to transfer to postpartum unit, minimal use of narcotics, and early mobilization. They also identified her as having obstructive sleep apnea. As luck would have it, she arrived unexpectedly during an off-shift. The planning done by the high-risk team, including use of risk-assessment tools, allowed the staff on shift to access a written plan of care for this patient. This patient fell into the high-risk category for VTE because of her multiple risk factors, including high BMI, gestational diabetes, maternal age, pregnancy, and the surgical delivery. Because of this, she was provided sequential compression devices beginning in the OR, and these were continued whenever the patient was in bed during her hospitalization. In addition, early ambulation was encouraged and pharmacological prophylaxis was initiated six hours following surgery. Pharmacy was consulted for appropriate dosing given her elevated BMI. The patient was discharged on postop day number four with a follow-up appointment scheduled within three to four days for staple removal and glucose monitoring. Her discharge orders included frequent ambulation and chemical prophylaxis for six weeks for VTE prevention in addition to routine C-section postoperative instructions.

Managing and caring for this patient in terms of high-quality delivery, recognition of risk factors, early interventions, and “stellar” hand-off communication was a challenge to the OB nurses. If transfer had been required to a higher level of care, such as ICU, then critical care nurses would require assistance from the obstetric team in managing postpartum assessments. Caring for M was significantly helped by guidance from the recently released OB VTE Safety Recommendations, which offer a defined clinical process that covers the entire continuum of care. These recommendations provide a much-needed road map to navigate the care of pregnant patients to help prevent VTE. Previously, patients at highest risk—those with a history of VTE or PE—were a "known" in terms of how to provide care, but all of the other risk factors are now being brought to the attention of physicians and nurses, which enables clinicians to provide the best possible care to patients.

Implementation of the OB VTE Safety Recommendations involves a four-step process that should be followed from the moment an OB patient is admitted until the patient is discharged home and her follow-up care is completed. The four-step process was designed to remind clinicians of the safety recommendations and, again, should be considered throughout the patient’s entire continuum of care. The relevant advantages of this four-step process include:
- Ease of implementation and adoption across the OB specialty.
- Identification of a consistent baseline and reassessment of patients’ individual risk factors.
- Early identification of the patient’s actual level of risk.
- Identification of which VTE prevention prophylactic measures are most appropriate and when they should be implemented.
- Detailed discharge instructions with documented patient understanding. These are developed early in the course of care and provided to the patient, who is required to “read back” the instructions to determine the patient’s level of understanding.
- Patient engagement and education. This gives the patient the tools and confidence to self-advocate
- Engagement of family members and significant others in the discharge planning process. The patient’s immediate support system can be assigned roles to help the patient empower herself and to encourage her to stay on course.

It is important to remember that the commitment to prevent VTE does not end when the patient is discharged. Appropriate patient education will help the patient understand the importance of complying with discharge medications, use of sequential compression devices at home, and frequent ambulation, and returning for all follow-up appointments.

To achieve the most optimal clinical outcomes, pre-planning is key when there are multiple challenging individual patient characteristics, as was the case with patient M. Priorities and pre-identification of what the clinician actually needs to treat a patient at high-risk for complications should be discussed and determined in advance within the provider team. This type of anticipatory troubleshooting is a necessary task but not always easily accomplished. It requires a knowledgeable team and the best available tools, so that all possible clinical scenarios that may be encountered can be considered.


Links:
[3] [http://www.obgyn.net/gestational-diabetes](http://www.obgyn.net/gestational-diabetes)
[4] [http://www.obgyn.net/obgyn-nurses](http://www.obgyn.net/obgyn-nurses)
[5] [http://www.obgyn.net/authors/lisa-enslow-msn-rn-bc-0](http://www.obgyn.net/authors/lisa-enslow-msn-rn-bc-0)
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