Induction/Airway
- If pt is grossly unstable and does not have an epidural, GA will likely be needed.
- Reexamine the airway, as this can change through labor; consider video laryngoscopy.
- Rapid sequence induction.
- If pt is severely hypovolemic, consider blood transfusion with a hemodynamic-sparing induction technique.

Maintenance
- If pt is hemodynamically stable, may consider neuraxial anesthesia.
- For general anesthesia, 100% FIO_2 with volatile anesthetic at 0.5 MAC or less (to minimize uterine relaxation) plus nitrous oxide throughout the procedure as maternal BP tolerates. If an arterial line is present, can use PO_2) from ABG to measure oxygenation while using nitrous oxide to minimize the volatile agent.
- Restore blood volume to keep Hgb >7–8 g/dL and BP stable.
- If pt is stable after delivery, consider midazolam and titrating opioids.
- Fetus may require intensive resuscitation; have neonatologist present.

Extubation
- Standard extubation criteria: Pt awake, full return of neuromuscular function, hemodynamically stable, no continuous bleeding, baseline acid/base and electrolyte status

Postoperative Period
- Consider admission to ICU.
- EBL may be 3000–6000 mL, so follow the trend of CBC and coagulation factors q2h for at least 8 h.
- Consider IV PCA or postop epidural if coagulation status is normal.

Anticipated Problems/Concerns
- Consider other more common causes of antepartum hemorrhage (e.g., placenta previa, placental abruption).
- Pregnant pts who hemorrhage can develop DIC quickly. Monitor coagulation factors and platelets.
- Symptoms of uterine rupture may be vague or misleading. Obstetricians and anesthesiologists must possess a high index of suspicion to diagnose uterine rupture in a timely fashion.
- Rupture of classic cesarean scar or previous upper uterine surgery scar is much more likely to result in severe hemorrhage.

Varicella-Zoster Virus

Lee A. Fleisher

Risk
- Prevalence: <10% of adults seronegative
- Usually contracted during childhood.

Perioperative Risks
- Minimal additional risk to pts unless immunocompromised.
- Risk of infection for caregivers.

Worry About
- Encephalitis in immunocompromised pt
- Potential nosocomial transmission
- Acyclovir-induced nephrotoxicity
- Transmission to pregnant woman

Overview
- Viral cause of varicella (chickenpox) and herpes zoster (shingles).
- Caused by both nosocomial transmission and direct contact.
- Development of herpes zoster is common in immunocompromised pts and may be a forerunner of AIDS.
- Zoster is a reactivated form of varicella from neural ganglion cells and can be associated with severe pain.
- May lead to congenital abn if contracted during first trimester of pregnancy.

Etiology
- Herpes group of viruses

Usual Treatment
- Varicella immune globulin.
- Vaccine is available but controversial.
- Antiviral medications decrease the duration of symptoms and the likelihood of postherpetic neuralgia, especially when initiated within 2 d of the onset of rash.
- Most common treatment is acyclovir; valacyclovir, penciclovir, and famciclovir are also available.
- Corticosteroid use is controversial for postherpetic neuralgia in pts with herpes zoster; controlled-release oxycodone was superior to placebo in the early period of pain.

Assessment Points

System	Effect	Assessment by Hx	PE	Test
RESP	Pneumonia	Dyspnea	Rhonchi	CXR
HEME	Thrombocytopenic purpura	Bleeding		Plts
DERM	Rash		Erythematous macules, papules, vesicles	
RENAL	Acyclovir nephrotoxicity			Cr
CNS	Encephalitis Optic neuritis; transverse myelitis	MS changes Vision changes		CT scan
PNS	Zoster shingles		Shingles in single dermatome Multiple dermatomes in immunocompromised	
IMMUNE	Associated with AIDS			HIV tests; CD4 titer

Key References: Christo PJ, Hobelmann G, Maine DN: Post-herpetic neuralgia in older adults: evidence-based approaches to clinical management, *Drugs Aging* 24(1):1–19, 2007; Philip A, Thakur R: Post herpetic neuralgia, *J Palliat Med* 14(6):765–773, 2011.

Perioperative Implications

Preoperative Preparation
- Consider isolation precautions.

Monitoring
- Routine

Airway
- Routine

Induction/Maintenance
- Routine
- Pts may require modification of periop pain management regimen if treatment for postherpetic neuralgia.

Extubation
- Routine

Anticipated Problems/Concerns
- Multiple dermatomes may indicate immunocompromised individual.
- Avoid exposing pregnant individuals to virus.