

C-37 No Gas in a Vacuum: Ethical Considerations in the Use of Nitrous Oxide for Labor Pain

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Objective

After completion of this session, the participant will be able to:

- Create a plan for labor pain management that respects patient preference for analgesic control.

Case Stem Question

A pregnant patient requests a consultation with the anesthesiology team to discuss options for pain control during labor. Her partner's family lives in Europe, and they have been telling her that everyone there uses inhaled nitrous oxide during labor. In fact, she recently transferred her care to a different obstetrician, in part because nitrous oxide is available at this hospital. (She was also upset by the way her partner, who is gender non-conforming, was treated by staff at her former obstetrician's office.) While discussing options for labor pain management, you make her aware that inhaled nitrous oxide might not always be available immediately due to space and equipment limitations.

Guiding Questions for Discussion

1. How is nitrous oxide administered for labor analgesia?
2. What options are available at your institution for labor pain relief? How do they compare in terms of effectiveness?
3. How does a "late transfer of care" affect obstetric management? What are the implications for anesthesia care?
4. How can we predict the success of nitrous oxide for labor pain management? Are there circumstances when nitrous oxide is more effective and parturients are less likely to switch to another analgesic method?
5. Is it unethical to offer different pain management options at different times or to different patients?

The patient's grandmother is encouraging her to have an epidural for pain management because "there's no reason to suffer like my mother and her sisters did." The patient is nervous about needles, and several of her friends have recently delivered without any pain medication.

6. How has the treatment of labor pain changed over time? Does the history of the field of obstetrics affect our interactions with patients today?
7. How does fear affect the experience of pain? To what extent is patient satisfaction dependent on analgesic effectiveness? Is nitrous oxide appropriate for treatment of her specific anxiety?

The patient's mother sent her an article about nitrous oxide's contribution to global warming and thinks she should consider other option

8. What is the environmental impact of nitrous oxide? The nitrous oxide delivery system is connected to a dedicated waste anesthetic gas disposal (WAGD) line in the delivery room. How does this mitigate the effects of nitrous oxide?
9. How important is it to discuss global warming potential and occupational exposure in this case? Shouldn't the patient's comfort and safety come first?

The patient chooses to have an epidural. She writes a birth plan specifying that she does not want nitrous oxide under any circumstances. Cesarean delivery is required due to arrest of descent. After delivery, she has significant discomfort with uterine manipulation. You give additional epidural lidocaine and suggest inhaled nitrous oxide until the medication takes effect. Her partner becomes angry at the suggestion because it goes against the written birth plan. The patient is in pain and continues to moan incoherently.

10. Is this patient currently able to give informed consent? Should decisions about her medical care be deferred to her partner? How does the principle of patient autonomy apply in this situation?
11. How might her partner's prior negative experiences with the medical system affect decision-making in this situation?
12. How do you treat discomfort, not relieved by the epidural during a cesarean delivery?

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