Seeking Quality in Postoperative Epidural Analgesia—Employing Epidurography

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## Faculty Disclosure

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Disclosures

No duality of interest- financial or otherwise

I have no intention to promote or discourage the use of any particular device or product.

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Optimizing Epidural Placement -

Do We Have a Quality Problem with Epidural Analgesia?
Objectives

• Evaluate methods of assessment for postoperative epidural analgesia.

• Use spinal anatomy to evaluate contrast distribution through epidural and non-epidural catheters.

• Identify clinical scenarios where traditional assessment of epidural analgesia function is unreliable.
Case:

63 year old male undergoing laparotomy for small bowel resection

– Crohn’s disease
– Chronic abdominal pain
– Chronic opioids
– Retired, Radiologist
How Do We Define Quality?

Value = \frac{Quality \text{ Appropriateness (Service + Outcome)}}{Cost \text{ Necessary Cost + Cost of Waste}}
Defects

Technical (Placement) Defects

Assessment Defects

Maintenance Defects
Technical Defects

• “Failure” reported as high as 41%
  • Replacement required
  • Additional analgesic modality (PCA)

• Abandonment of placement

• Home institution- 16% defect rate
Assessment Defects

“Loss of pin-prick/cold sensation”
– Time-efficient?
– Accurate in all patient populations?
– Correlate with analgesia?
Assessment of Epidural “Block”
What to make of a “patchy block?”
Confirmation Bias
Maintenance Defects

• Failure to actively manage, adjust

• Dislodgement during intended therapy period
  • Neal et al.- 14%
  • Increased risk in obese patients

Patient Satisfaction

• Lack of rigorous data to assert higher satisfaction rates with epidural analgesia

• Dissatisfaction includes:
  • Pruritus
  • Encumberment
  • Urinary catheter
  • Sensation of numbness?
Value = \frac{\text{ Appropriateness } \ (\text{Service} + \text{Outcome})}{\text{Necessary Cost} + \text{Cost of Waste}}
Appropriateness

• Evidence-based application?
  • Lower abdominal surgery?
  • Low transverse incisions?
  • Comparison to other techniques?

• How does payment model influence utilization?

• What would you pay for in out-of-pocket scenario?
How Do We Define Quality?

Value = \frac{\text{Appropriateness (Service + Outcome)}}{\text{Necessary Cost + Cost of Waste}}
Thank you!