## Epidural Analgesia



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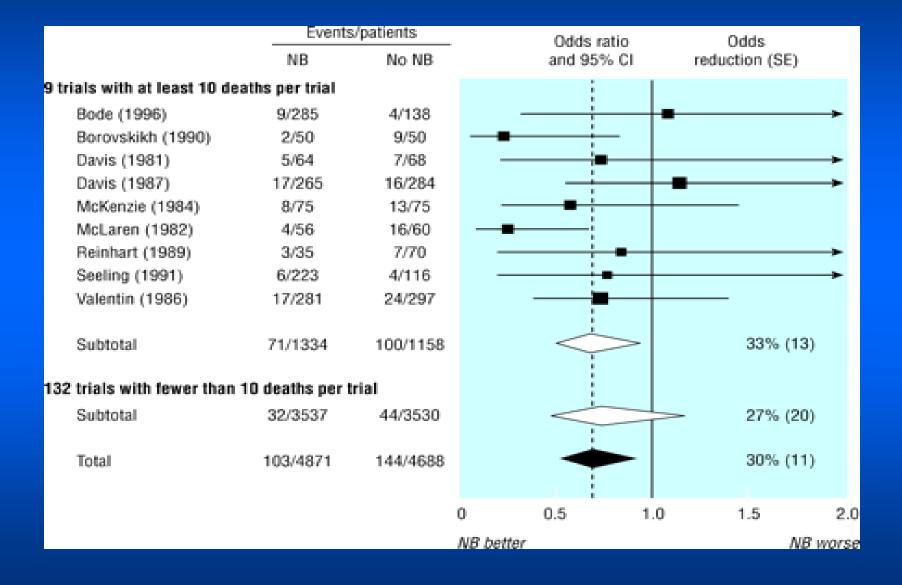
## What about epidurals

- Represent the gold standard of pain relief after thoracic and abdominal surgery
- Evidence suggests the most significant improvements in outcome are seen where epidurals are used instead of systemic opiates. Eg Enhanced Recovery Pathway
- Can be managed in a ward setting with sufficient education.

## Promises of epidural analgesia

- Mortality
- Morbidity
  - Cardiovascular
  - Respiratory
  - Coagulation
  - Major infections
- Quality of pain relief
- Hospital costs

## Effect of neuroaxial blockade on postoperative mortality within 30 days of randomisation (Rodgers 2000)



### **NNT**

NNT to prevent one episode of respiratory failure with epidural analgesia is 15

NNT to achieve 50% reduction in moderate to severe pain with ibuprofen 200mg is 2

# Implementation of an epidural service



## Epidural Infusion/PCA



## Epidural solutions

- 0.1% Bupivacaine plus fentanyl 2mcg/ml
- Plain 0.1% Bupivacaine

Epidural PCEA

Bolus given by midwifes

## Mr Jones will undergo a thoracotomy. What would be your analgesia of choice?



### **EPIDURAL TOP UP PLAN FOR ADULTS**

NB: Standard Epidural Solution = Fentanyl 2mcg/ml in Bupivicaine 0.1%

YES

epidural

infusion by

30% up to

20ml/hour\*

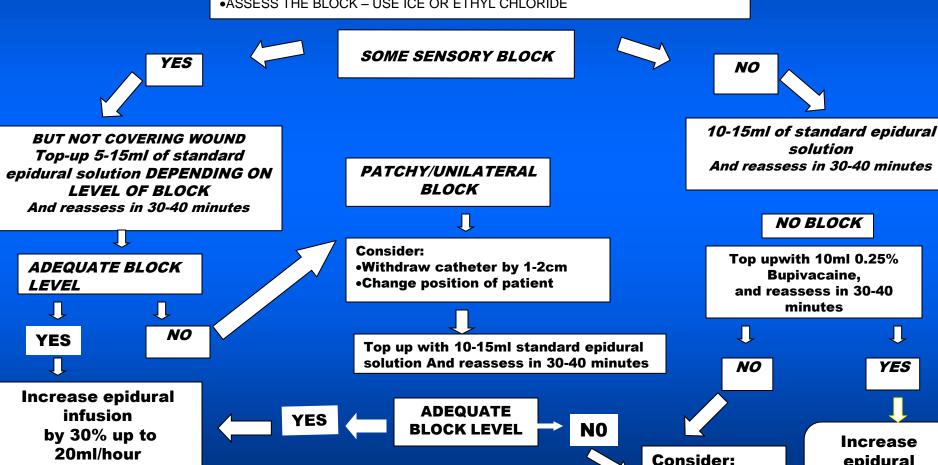
reinsertion

of epidural

•PCA

#### EPIDURAL NOT WORKING - PATIENT COMPLAINS OF PAIN

- **•**CHECK PUMP IS WORKING
- •LOOSE CONNECTION & CATHETER LEAKS
- •CATHETER DISPLACED
- •ASSESS THE BLOCK USE ICE OR ETHYL CHLORIDE



## Cautionary Tales

- Dural puncture
- Epidural haematoma
- Epidural abscess
- Failure of technique
- Training
- Resource restraint



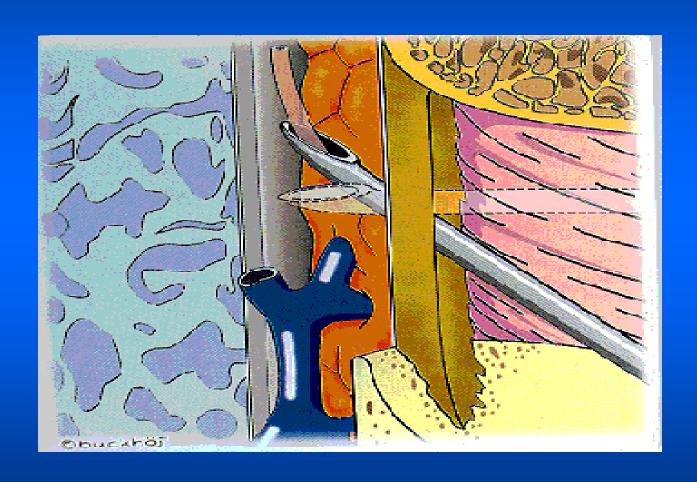
# Epidural analgesia as a preemptive strategy

- Systematic review showed significantly improved pain immediately postoperative, but only a trend to long term reduction of chronic pain 1.32(95% CI 0.76-2.3)
- Acute pain predicts longterm pain (Katz et al 1996)
- Similar story with phantom limb pain (Bach vs Jensen)

## Epidural analgesia

- Remains controversial
- When to start it
- What to do about heparin
- Relative risks and benefits
- RCA audit.

## Conclusion



## Epidural Analgesia

- Effective in relieving severe pain
- Effective in mobilising the patient early
- Requires skill and training to be safe
- Serious complications have to be recognised

