Developing a National PEWS for Scotland

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Fast Forward: 2012

- 14 territorial health boards
- Focus on deteriorating patient
- ALL healthboards **reliably** implemented “the other stuff”
  - Safety brief
  - Structured handovers / SBAR
  - PEWS
  - watchers
  - Safety huddles
  - Organisational huddles
  - Many doing in situ simulation
Creating a national score & chart

• Literature review
• Understanding how PEWS is currently working on a national scale
  – Delphi process
  – Data review
    • Is it the best in ALL environments?
    • Does it work as well on paper as it does electronically
    • For all patients
• Testing
• VALIDATION
Delphi Process Observations contributing to PEWS

- Dr / Nurse concern
- Respiratory distress
- Capillary refill
- Work of Breathing
- O2 therapy
- Blood pressure
- Temperature
- AVPU
- Heart rate
- Respiratory Rate
- SpO2
The Beginning

- **PEWS recorded**
  - Median 98-100%

- **Scored correctly**
  - Median 85-95%

- **Escalated appropriately**
  - Median 75-95%
It’s a human factors thing
Introducing new risk?

Check against last 10 deteriorating patients

Identified earlier or later?
In board testing

- How does it “feel”
- How easy is it to use
- Do you have concerns it is missing deteriorating patients
- Do you have concerns it is oversensitive and resulting in “bleep fatigue”
- How often do you see each score
  - ED / PAU/ inpatient ward/HDU/PICU transfers
- Weekly recording of PEWS data
  - Is there any change in reliability of scoring / escalation
NHS Scotland PEWS
AUROC = 0.81 (0.77 – 0.84)
Reflections

• We still don’t believe the score is the most important thing
• Common language & common goals
• Achievement at teamwork
• Electronic validation is not the same as clinical validation
• Would we do it again?
  – Wait for someone to tell us which is the “best score”
  – Check it is best in all environments
  – We know we will be changing in the future and as such this is a stepping stone