# Critical Results: Whose Responsibility?



#### What is a critical result?

- A critical result is one that is so extremely abnormal that it represents a life threatening condition for which some corrective actions should be taken promptly
  - Lundberg GD. When to panic over abnormal values.
    Med Lab Obs 1972;4:47-54
- Critical results and critical tests
  - Campbell CA, Horvath AR. Harmonization of critical result management in laboratory medicine. *Clinica Chemica Acta* 2014;432:135–147



### RCPath FBC cut-offs, 2010

- Lower cut-off limits:
  - Neutrophils 0.5 x 10<sup>9</sup>/L
  - Hb 50 70 g/L
  - Platelets 50 x 10<sup>9</sup>/L
- Upper cut-off limits:
  - Neutrophils 50 x 10<sup>9</sup>/L
  - Hb 190 g/L
  - Platelets 1000 x 10<sup>9</sup>/L

The Royal College of Pathologists (UK). Out-of-hours reporting of laboratory results requiring urgent clinical action to primary care: Advice to pathologists and those that work in laboratory medicine. London, UK: RCPath; 2010.



#### ISO 15189: 2012

- Defines the need for a policy for the management of critical results
- Effective policy requires a list of critical results and tests
- ICSH 2014
  - International survey on current practice



## Defining a critical result

- What should be considered critical?
  - Uniform alert thresholds for all patients?
  - Who defines critical tests and critical results?
  - What alert thresholds do you use?
- Should exemptions be allowed?
  - By category of patient
  - By ward/department/clinician
- Should results be repeated before reporting?
  - If yes, do you repeat 'non-critical' results
  - Does repeating tests just introduce delay



## Notifying critical results/tests

- How quickly should results be notified?
- How are results notified?
- Who gives/receives results?
- How do you confirm receipt?
- Is information overload a danger?
- What action do you take if you can't reach the responsible clinician or alternative?
- How do you balance the use of resources?



#### Critical results session

- When critical results reporting goes wrong
  - Dr Kate Ryan
- A clinician's viewpoint
  - Dr William McKane
- A laboratory manager's viewpoint
  - Ms Tracey Smith–Straney
- A medico-legal viewpoint
  - Dr Michael Devlin
- Discussion

