

# Paediatric patients

## *Trauma and transfusion*



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**#NAAW #HEMS2017 @STGEORGESMTC**







# Children's Emergency Department



A word cloud visualization centered around the theme of evidence-based practice. The words are arranged in a circular pattern, with 'research' and 'evidence-based' being the most prominent. Other significant words include 'program', 'practice', 'group', 'intervention', 'families', 'experience', 'control', 'important', 'people', 'communities', 'need', 'approach', 'rigorous', 'effect', 'much', 'discuss', 'e.g.', 'hierarchy', 'consider', 'community', 'data', 'creating', 'information', 'evaluation', 'receive', 'level', 'due', 'might', 'workers', 'qualitative', 'types', 'likely', 'knowledge', 'benefits', 'participants', 'looking', 'studies', 'assessing', 'wisdom', 'context', 'results', 'link', 'design', 'relevant', 'high', 'range', 'also', 'see', 'different', 'under', 'test', 'then', 'web', 'generally', 'line', 'evaluations', 'usually', 'better', 'replicated', 'outcomes', 'help', 'chain', 'practitioners', 'appropriate', 'offer', 'one', 'higher', 'want', 'children', 'work', 'measures', 'critically', 'change', 'positive', 'practitioner', 'teacher', 'measure', 'groups', 'related', 'world'. The colors range from dark blue to light yellow.



# TARN

THE TRAUMA AUDIT & RESEARCH NETWORK





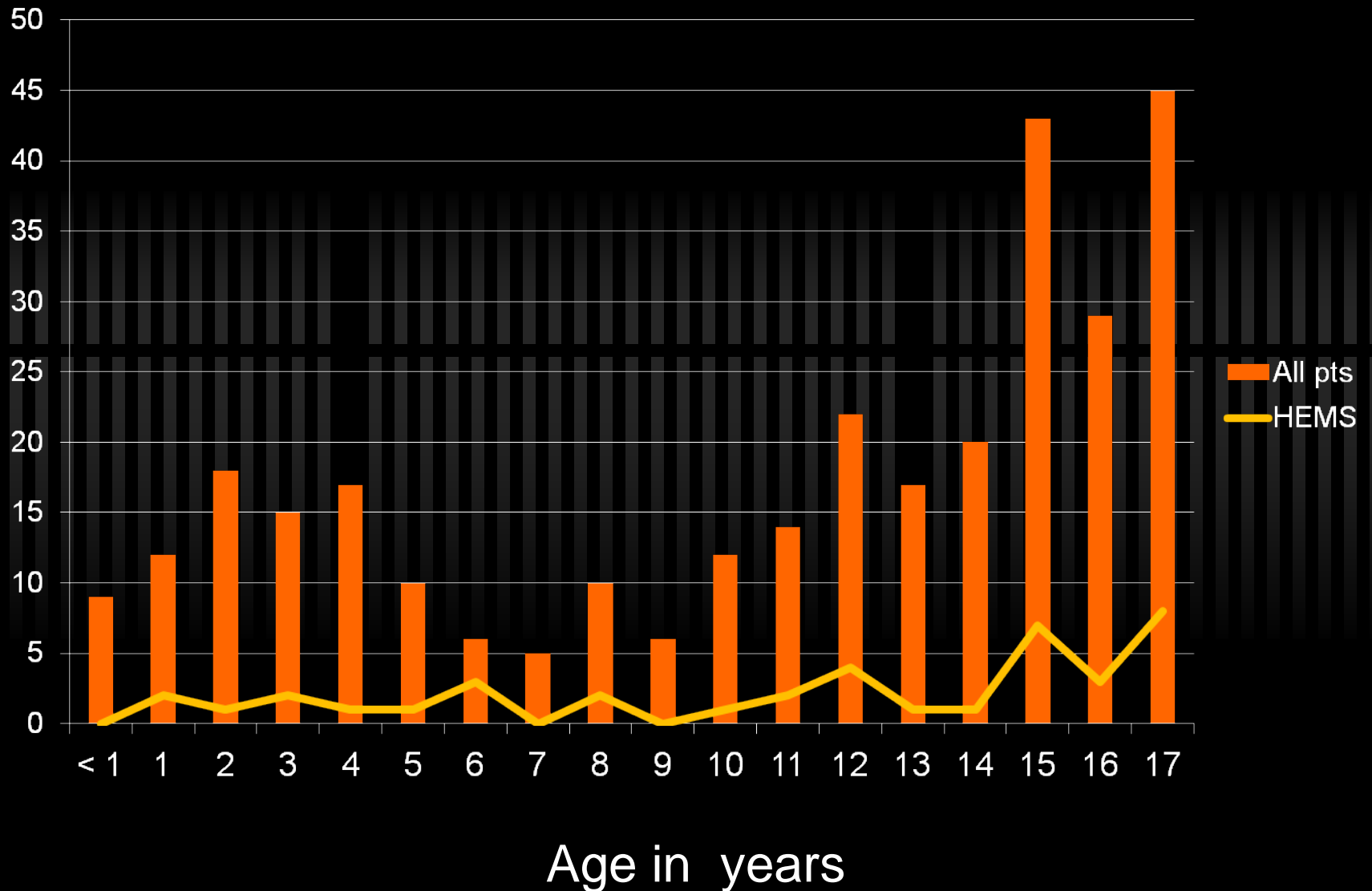
**St George's  
University Hospitals  
NHS Foundation Trust**



**Emergency Department**

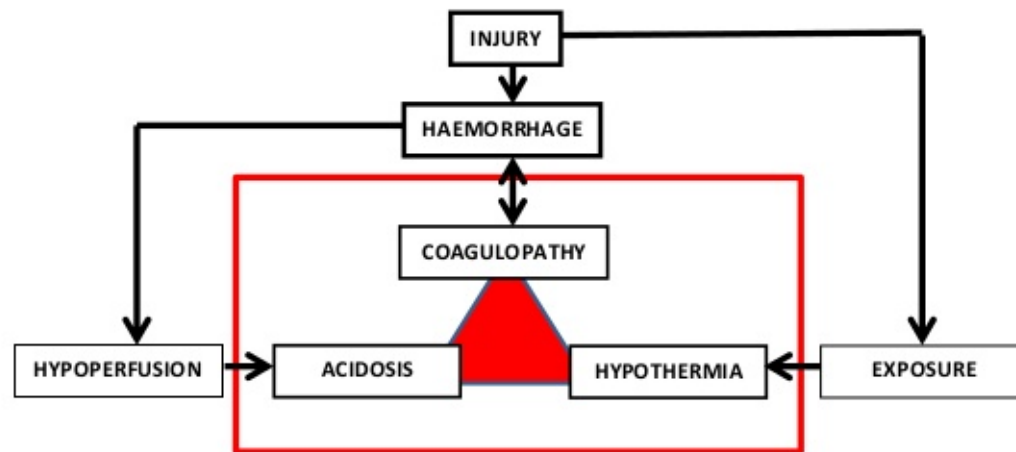


# Children's trauma by age





## THE LETHAL TRIAD IN POLYTRAMA



**COAGULOPATHY / ACIDOSIS / HYPOTHERMIA (CAH) –  
A VICIOUS CYCLE**





# How to resuscitate children?

- ✓ Hypotensive resuscitation not appropriate
- ✓ Robust compensatory mechanisms
- ✓ Different vital sign parameters
- ✓ Harm occurring with volume deficit
- ✓ Balance needs to be struck in fluid management













# Code Red Kids at SGH

- ✓ 3 year old male - RTC blunt trauma
- ✓ 2 year old male - RTC – multiple injuries
- ✓ 14 year old male - RTC blunt trauma multiple injuries
- ✓ 14 year old male - penetrating neck wound
- ✓ 14 year old male - IVC injury & evisceration
- ✓ 15 year old male - evisceration and epigastric artery
- ✓ 16 year old male - IVC injury & evisceration
- ✓ 17 year old male - superficial incisional wound
- ✓ 17 year old male - pneumothorax and lung laceration
  
- ✓ 14 year old male -- penetrating shoulder wound
  
- ✓ 15 year old male -- Code Red & DCS at TU
- ✓ 17 Year old male -- Code Red & DCS at TU



# Kent Surrey Sussex Air Ambulance

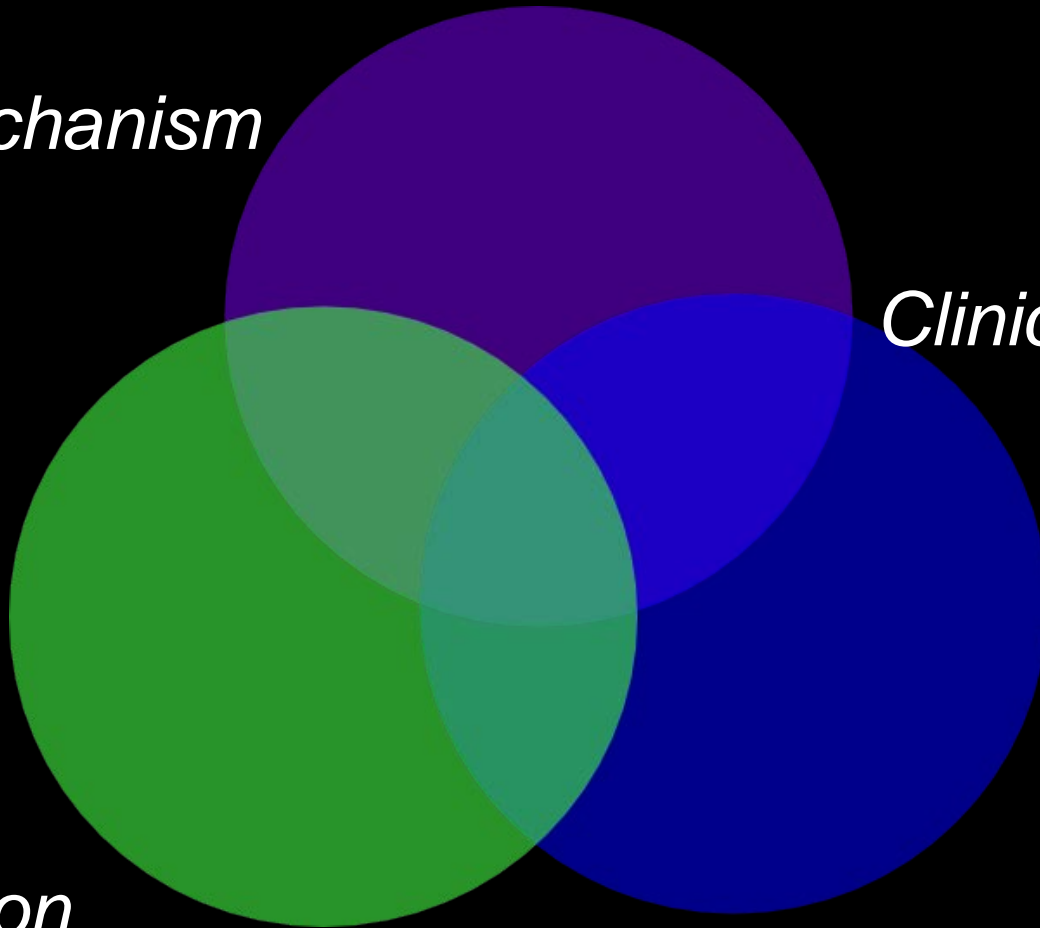


# Dispatch

*Mechanism*

*Clinical picture*

*Location*





# *Trauma, haemorrhage, shock & blood products*

**HEMS TEAMS  
TRAUMA NETWORKS  
C-ABC APPROACH  
AUDIT & RESEARCH**

**BLOOD**

**PLASMA**

**TRANEXAMIC ACID**

**HYPERTONIC SALINE**

**OCTAPLEX/BERIPLEX**

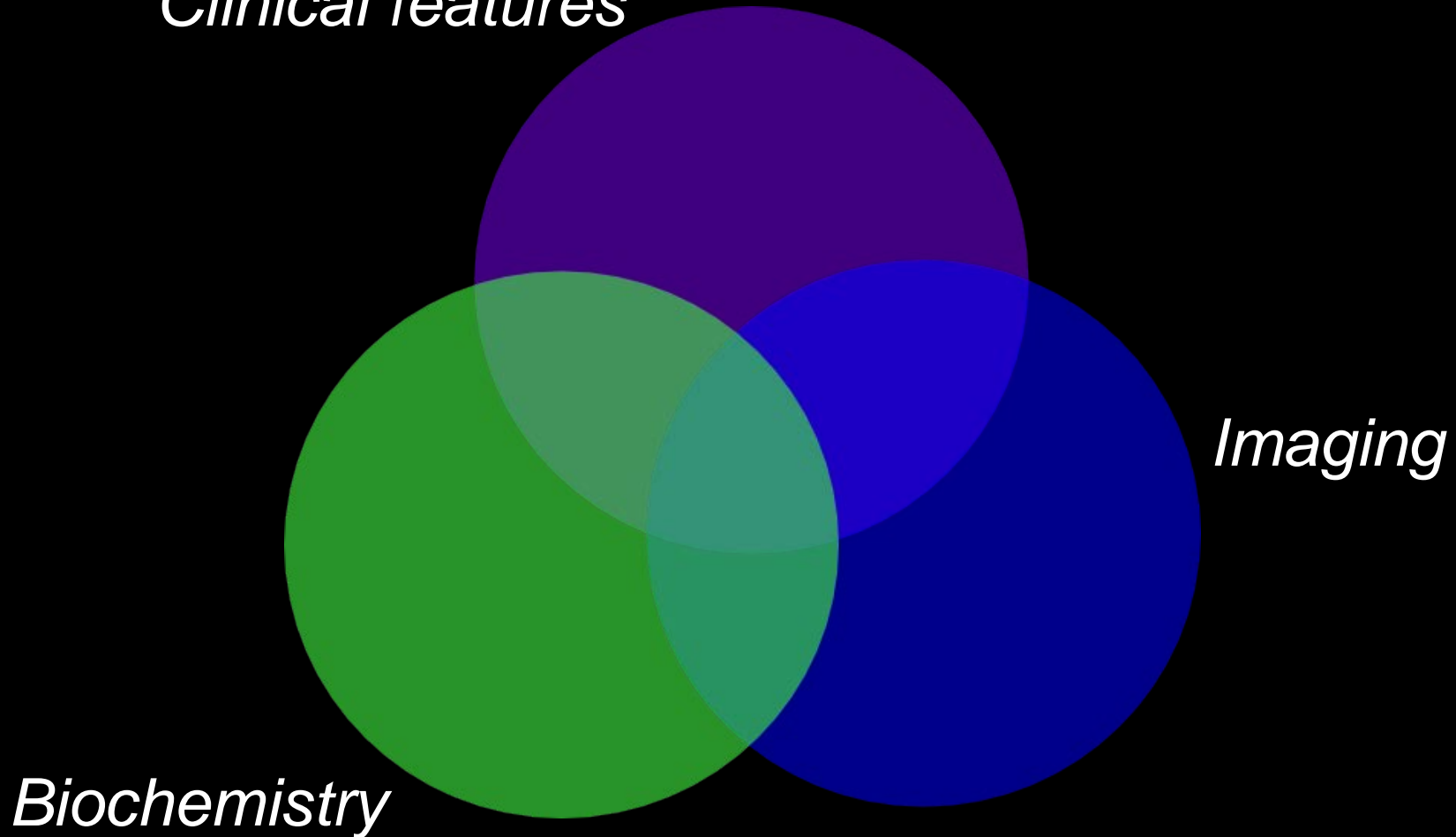
**RSI**

**PELVIC SPLINT  
LIMB SPLINTS  
PACKAGING  
WARMING MATS**

**TOURNIQUETS  
AORTIC COMPRESSION  
LARGE BORE ACCESS  
REBOA**

# Diagnosis of traumatic bleeding

*Clinical features*

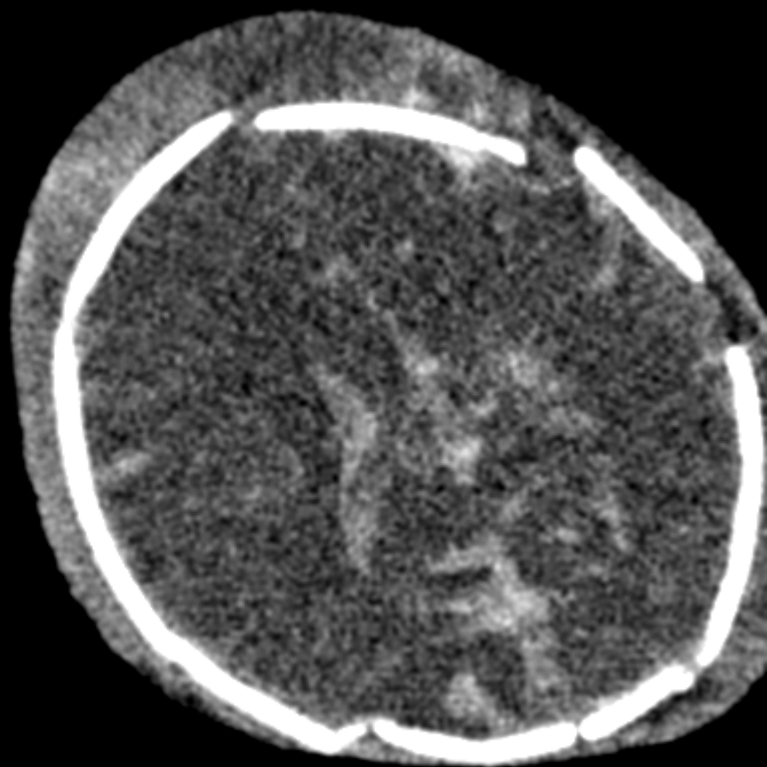
















# Take home messages

- ✓ 1. Paediatric trauma – it's the same trauma
- ✓ 2. Children – a different approach
- ✓ 3. Not every unstable injured child is bleeding to death
- ✓ 4. Paediatric Code Red is very rare
- ✓ 5. Trust - clinical skills and clinical signs

