

# Emergency Care of Stroke

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# Introduction



- Royal Infirmary of Edinburgh
- Teaching Hospital
- ED ~ 350-400 patients per day
- Largest ED in Scotland

# Hx of Stroke Care & Need for Improvement

- 2013 Audit revealed a mean DTN of 92 mins (worst 173mins)
- Only 15% of our pts thrombolysised within 60 mins

**This was not good enough!**

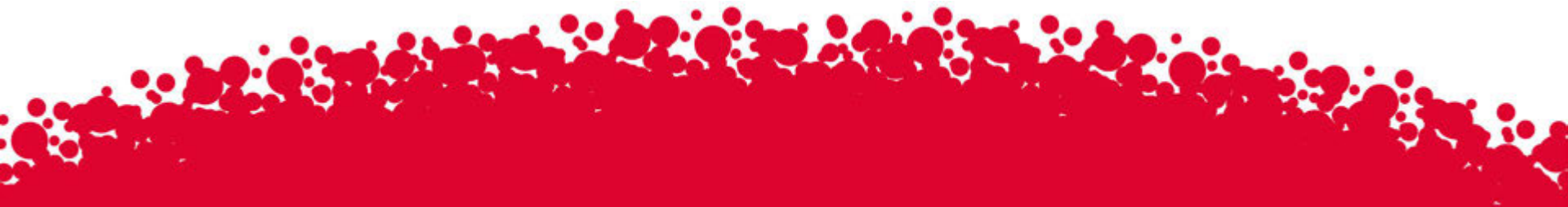
**We had to improve and FAST!!**

**What did we do?**



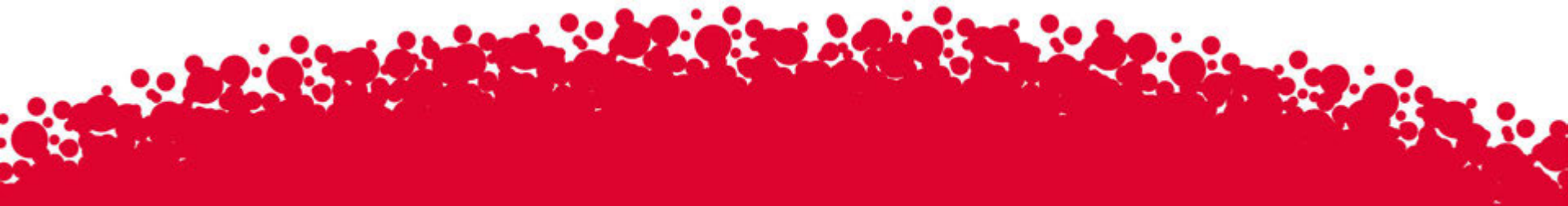
# Improvement Methods

- New triage system
- Improved pre-alert calls from SAS
- Any FAST +ve patients within 4.5 hours treated as a Resus patient
- ED and SAS agreed on this policy
- Pre-alert call was standardised for all SAS personnel
- Education throughout specialties
- Centralised potential thrombolysis patients to one hospital



# Improvement Methods

- Site specialty meetings
- Paperwork reviewed and simplified (ongoing)
- All nurses to be trained in swallow assessment (currently 75%)
- Swallow assessments on all patients ASAP
- Involve relatives immediately
- Named person to liaise with relatives o/a





- Early recognition
- Pre-alert by SAS
- ED pre-alert Radiology and Stroke Team



- Arrive ED
- Confirm onset time
- Order CT scan
- Contact Radiology and Stroke team if not yet in attendance





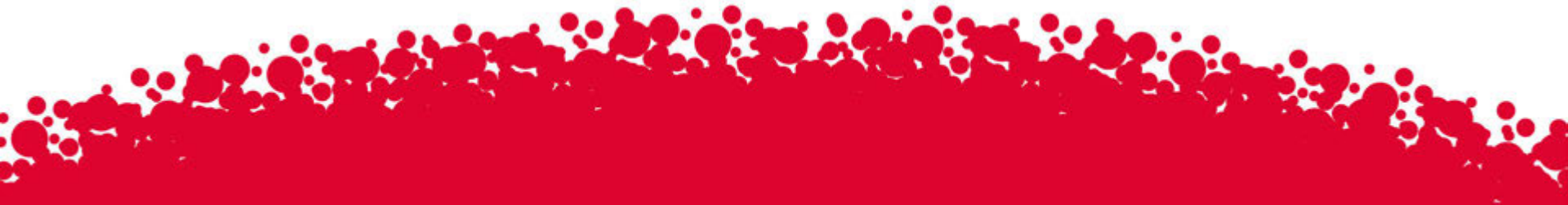
- Nurse escort to CT (Doctor if required)

- Meantime review PMHx and DH



- Discuss with family

- Review results and confirm diagnosis



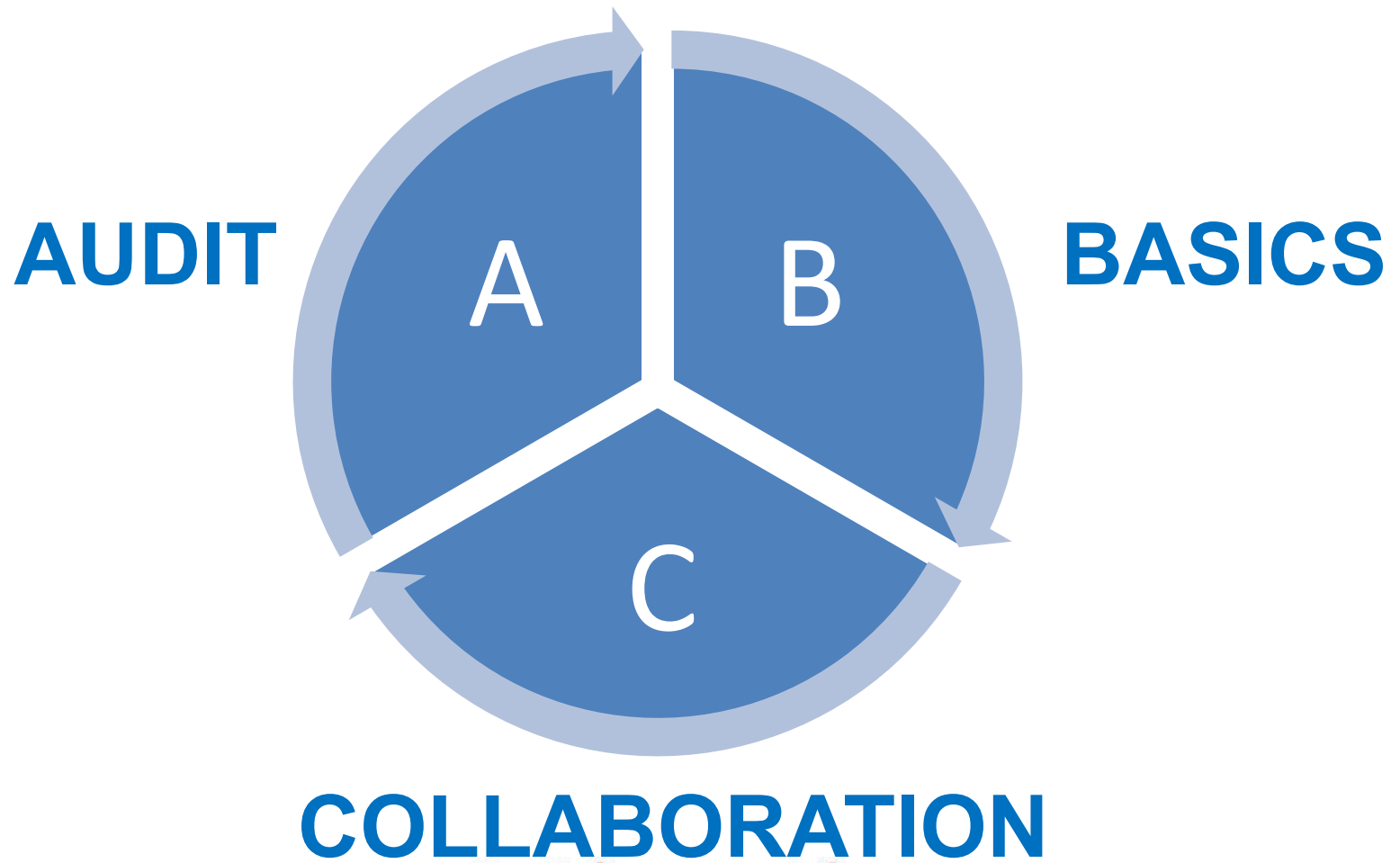


**DTN  $\leq$  60 minutes**



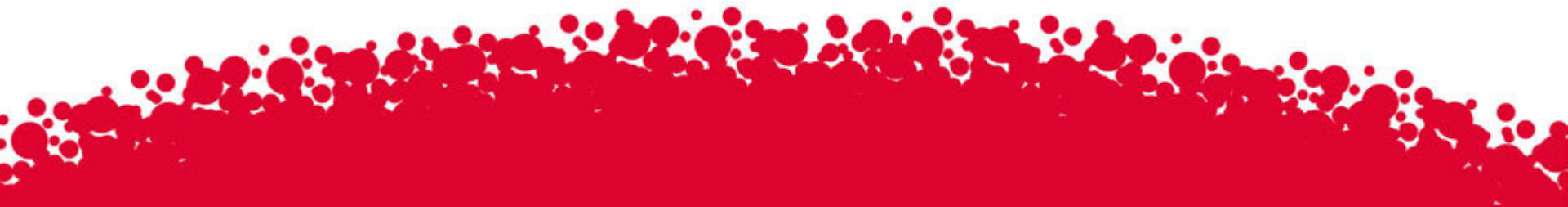


# The Future



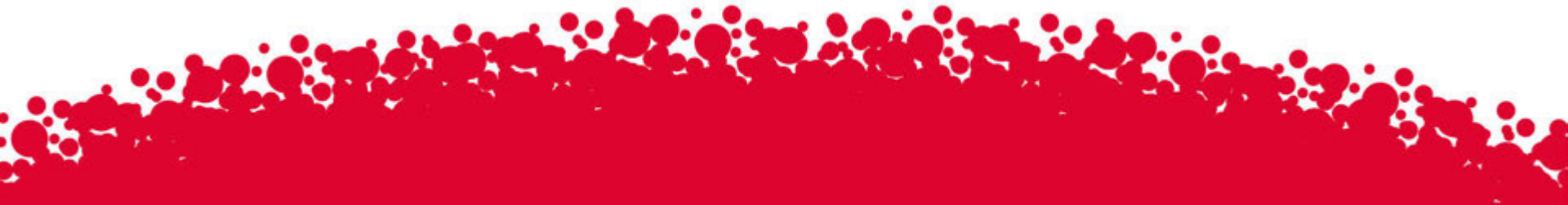
# Improvement Methods - Audit

- Continue to audit and include intra-cerebral haemorrhages
- Audit all complication rates
- Audit all outcomes
- Audit the entire patient journey



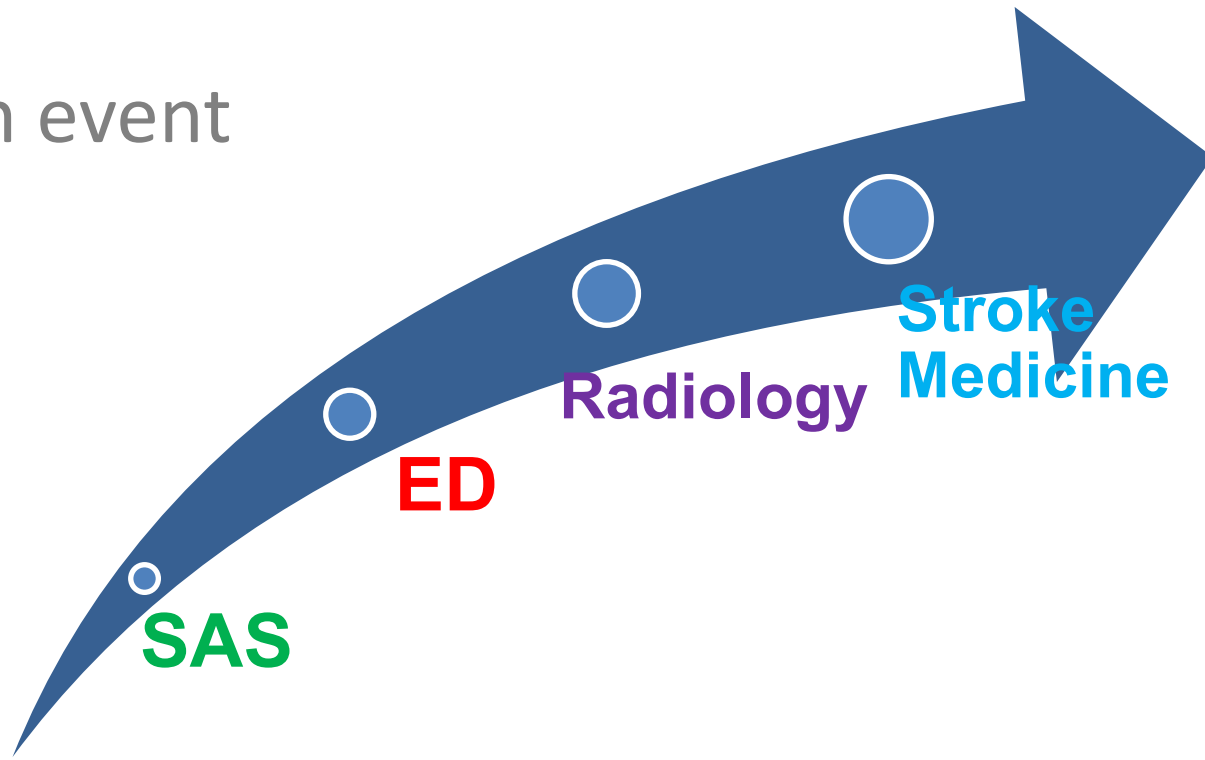
# Improvement Methods - Basics

- Get the Basics right!
  - Pre-alert
  - Early CT
  - Correct team in place
  - Early patient history
  - Documentation
  - Swallow Assessment



# Improvement Methods - Collaboration

- Team event

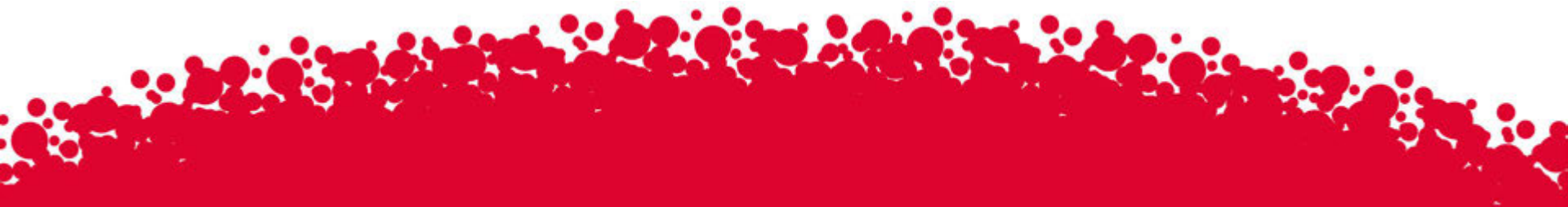


**• It is vital to work together – no-one can do it alone!**



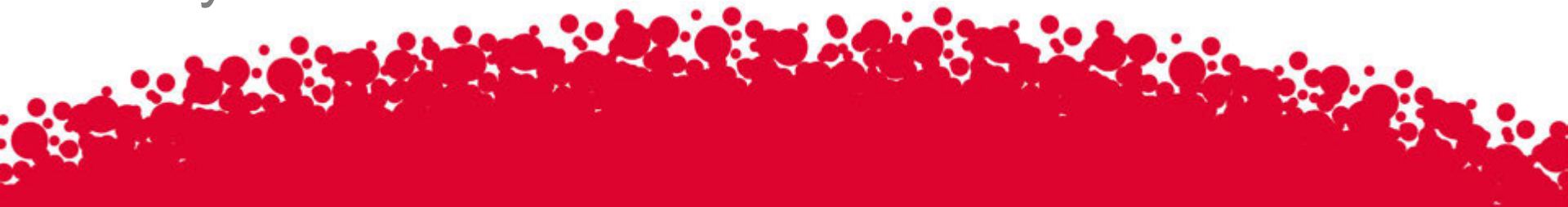
# Future Improvement

- Continual Staff Education – Multi-professional team
- Continually reviewing and improving paperwork
- 100% nursing staff trained in swallow assessment
- Keep family involved – we need their information
- Consider radiographer on site 24/7



# Conclusion & Key Messages

- Continual cycle
- Work together
- Audit and Research
- Improve patient outcomes
- Team event – multi-professional, patient and family



## **What about now?**

**74% of ALL suitable thrombolysis patients have a DTN time of under 60 mins!!**

**Best DTN last month = 19 minutes (OOH)**



# Thank you

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