The escalator approach to reduce risk of patient harm in the ED Emergency Department, St John's Hospital, NHS Lothian – Matt Vale (EM Consultant)

The quality issue

At St John's Emergency Department (SJH ED), as it is Nationally, the un-triaged patients in the waiting room is widely accepted as the most dangerous place for a patient to be in the ED.

Despite timely triage reducing this risk of potential harm, time to triage at SJH ED has increased for the last 3 years (chart 1). This is significantly longer during the busiest times of the day (chart 3), and is longer than the National guidance of 15 minutes.¹

The specific aim

To reduce the average time to triage to ≤15 minutes for 95% of category 2, 3, 4 patients & improve patient/staff experience of the triage process by October, 2019.

The steps & tools taken to tackle the aim

Step 1: A new ED quality improvement team (QIT) agreed improving triage was a priority (fig. 1).

Step 2: Reviewed by ED, the QIT drew iterative process maps of triage (fig. 1 & 2) to find possible areas for improvement.

Step 3: Using a series of votes the QIT's favoured change idea (> 50%) was to standardise variation in the triage process.

Step 4: Baseline data showed ED was busiest 1200 – 2000, when average time to triage was frequently > 40 minutes (chart 3).

Step 5: A standardised triage escalation policy was agreed by the QIT as an initial test of change (TOC). This was tested on Tues 31st July & Aug 1st.

The measures used to assess improvement

TOC: >5 patients; or >15 min in triage = extra triage nurse (max 4 nurses). Review at 30mins with further escalation/de-escalation.

Process: Review of run charts (Chart 5 & 6).

Balance: Review of time to 1st assessment, Length of stay, time to 1st investigation & staff experience (Fig.3 & Chart 4).

The test and effects of the change

Result 1: The average times to triage during the TOC decreased by 45%, without an increase in charted balancing measures.

Result 2: Further PDSA cycles of the test of change are in progress.

Result 3: Staff reported positive experience of the TOC (fig.5)

The lessons learned

This project kick-started an ED improvement initiative, including fortnightly QIT meetings & QI board to highlight patient care projects and generate staff/patient participation & experience.

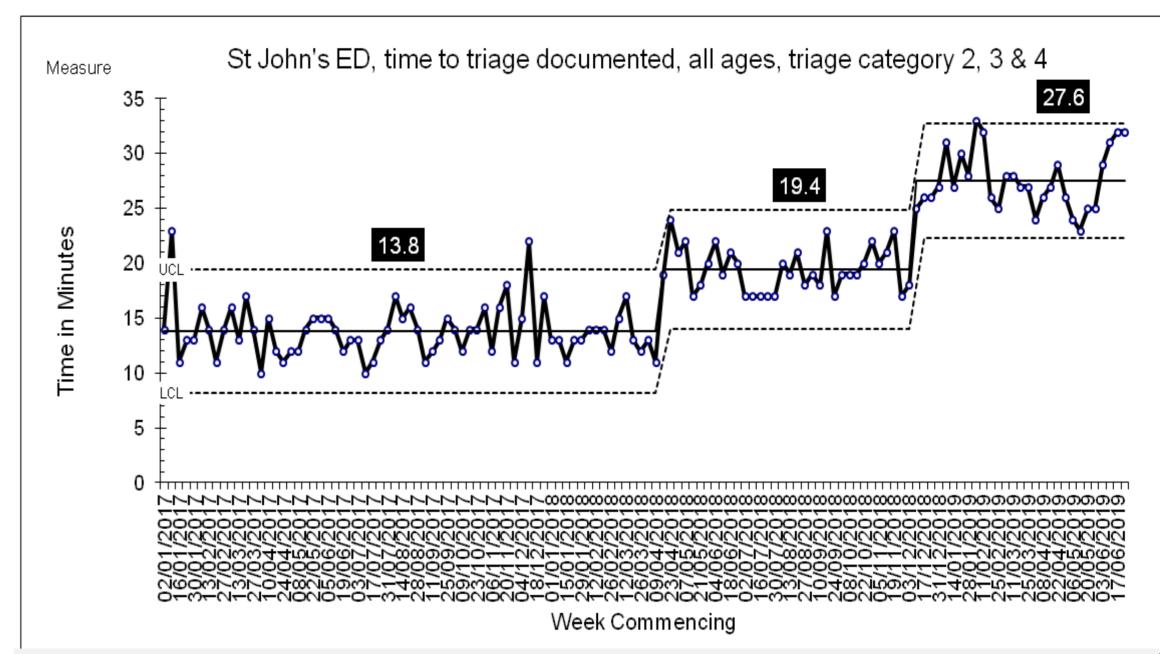
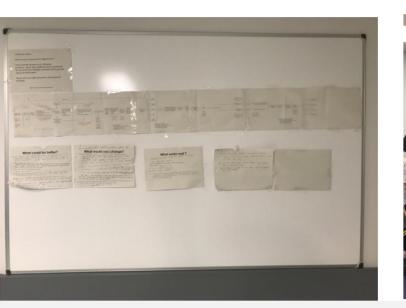


Chart 1. SJH ED Time to triage for cat. 2,3,4 patients 2017-19





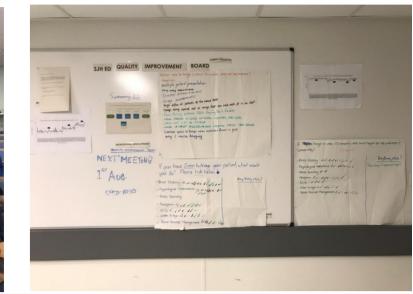


Fig 1. Quality improvement (QI) board and photo of new regular QIT meeting

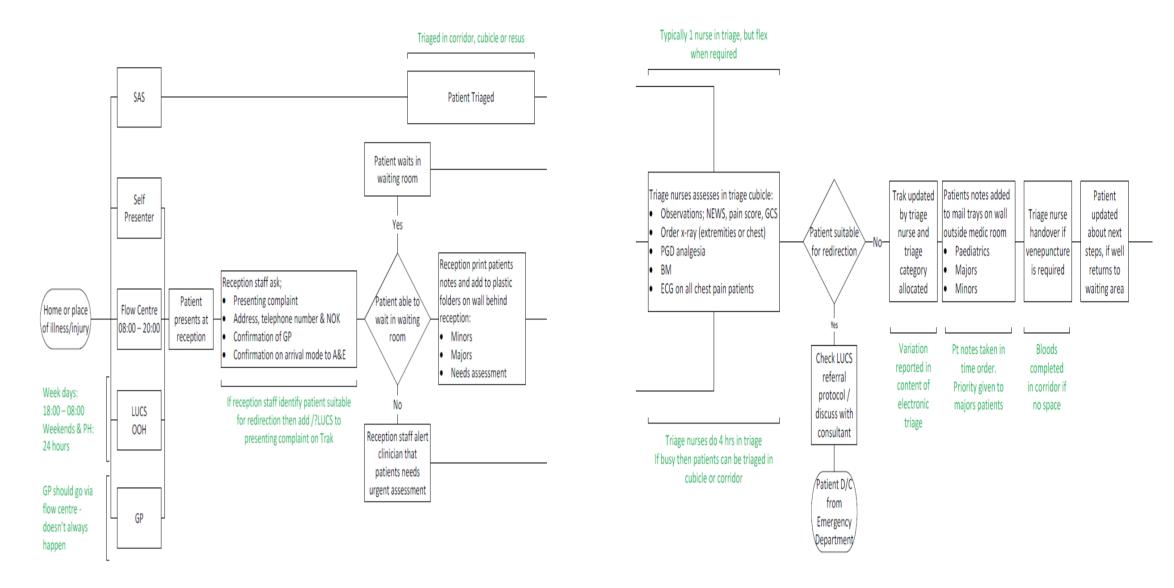


Fig 2. Iteration 3 Process Map triage process with ED comments (green)

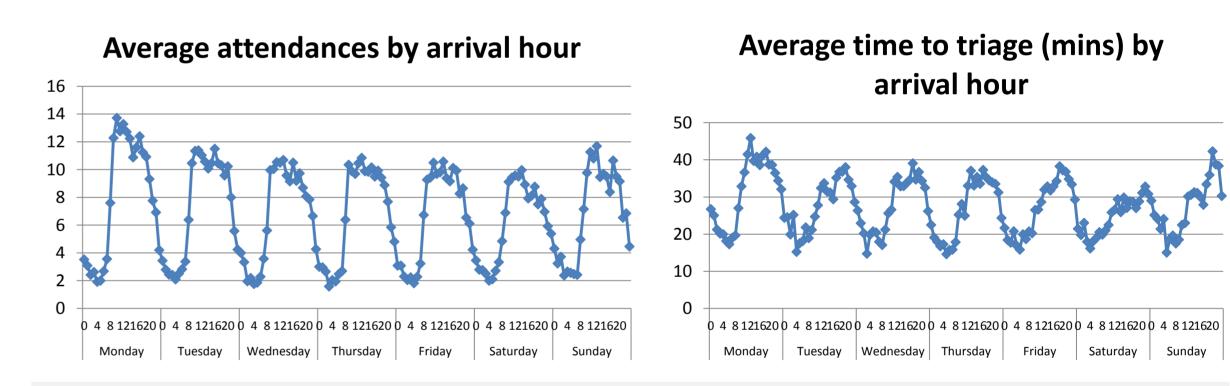
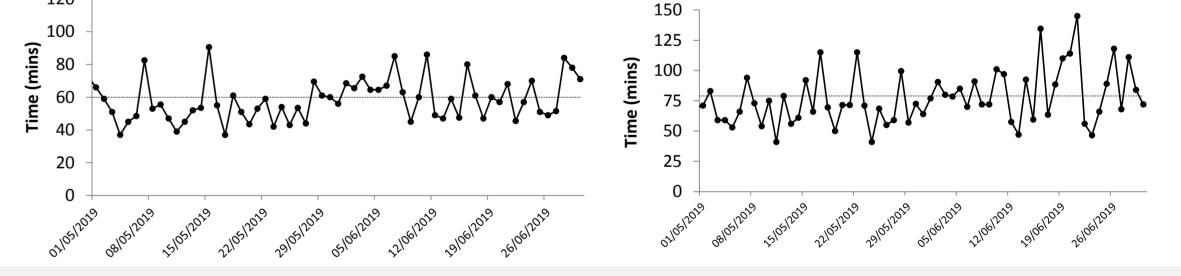


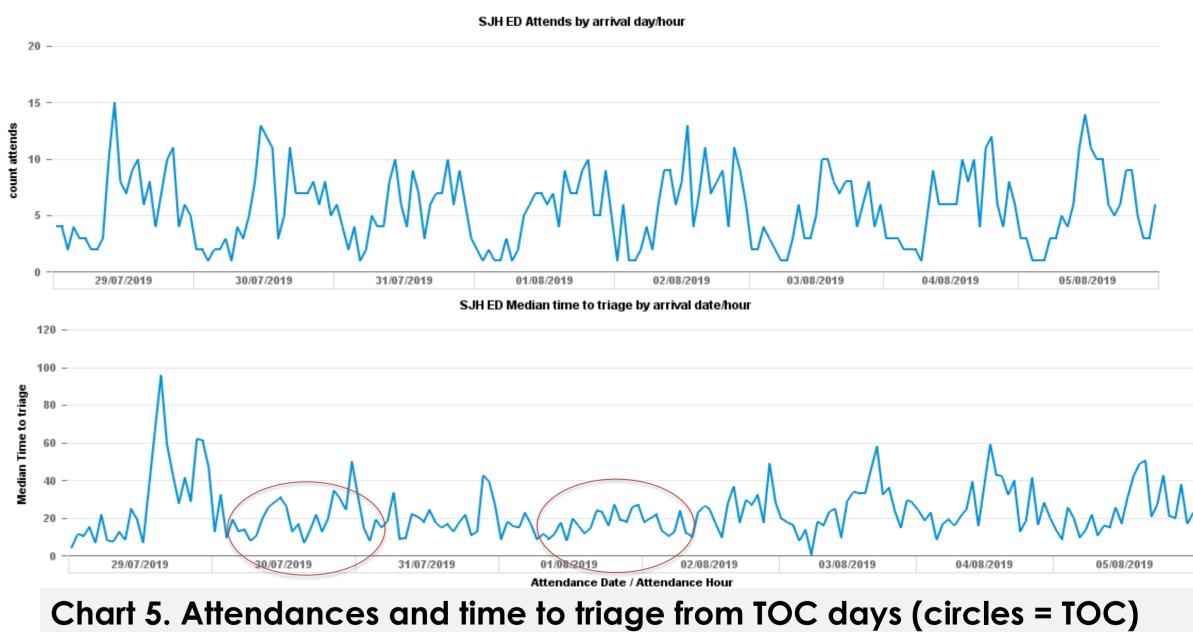
Chart 3. Averaged attendances & time to triage (Jan – Jun 2019).

Median time to 1st investigation



Median time to 1st assessment

Chart 4. Balancing measures. Time to 1st investigation & Time to 1st assessment



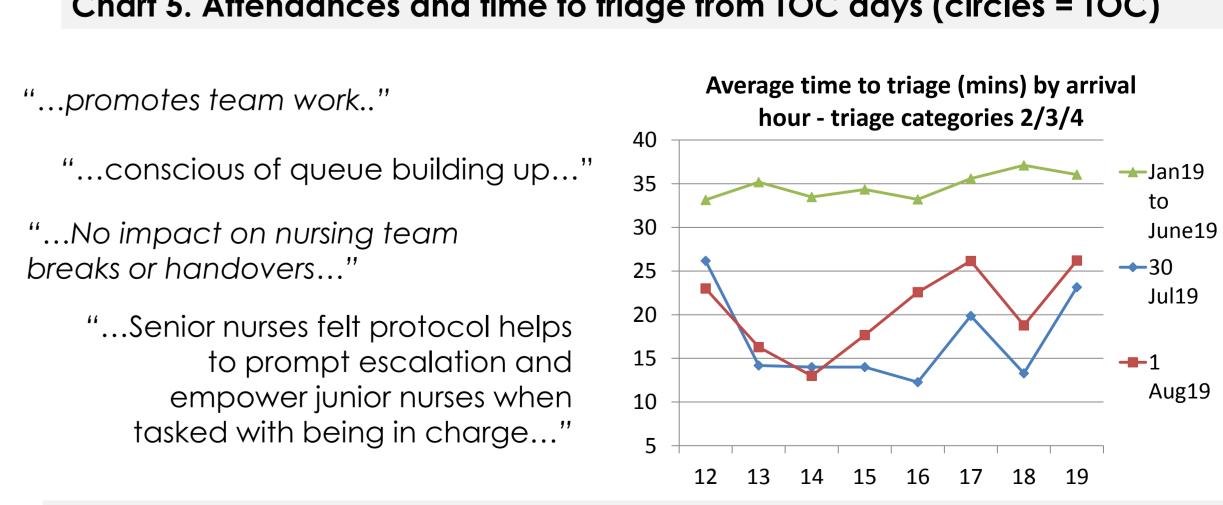


Fig. 3 Staff comments from TOC

Chart 6. Data from TOC vs Jan-Jun 2019



Special thanks to Jacqui Pringle, Liz Bream, Fraser Waterson, the SJH ED team and the QIT.





