

C.L.O.T. T.O. G.O. - Reducing unnecessary coagulation samples in a tertiary centre Emergency Department



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Background:

- Oxford University Hospitals comprises 2 Emergency Departments: John Radcliffe (JR), a Major Trauma Centre, and Horton General Hospital (HGH) a small district hospital
- From walk-in patients, an average of 48.3 clotting screens per day sent from JR and 28 per day from HGH – total 76.3/day, the majority of which are not clinically indicated
- RCEM and NHS England have issued advice about the limited utility of clotting samples in ED and guidance on when to send clotting screens in ED
- A clotting sample costs £10.38 per sample, so ~£290,000 annually spent on coagulation samples sent from walk-in patients to ED in Oxford University Hospitals

Aim statement: To reduce the number of coagulation screens sent from walk-in patients in JR ED by 20% within 4 months

Outcome measure:

- Total coagulation samples sent

Process measure

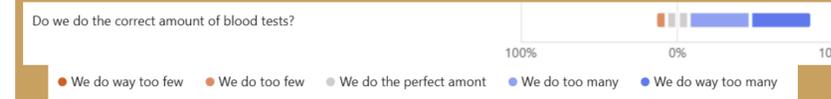
- Coagulation screen: FBC ratio (to control for total patient attendances)

Balancing measures:

- Consideration given to wait times, but multifactorial and number of rebleeds likely too small to impact on this
- Number of rebleeds (clotting ordered > 15 minutes after FBC) - historical data: 4.2 of 76.3 patients per day had retrospective D Dimer added

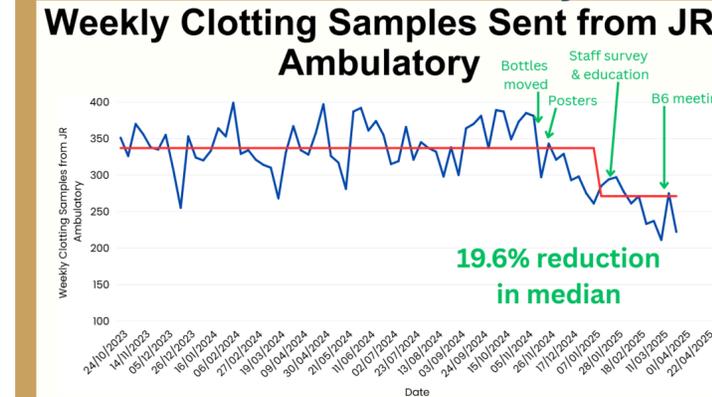


Results - staff survey



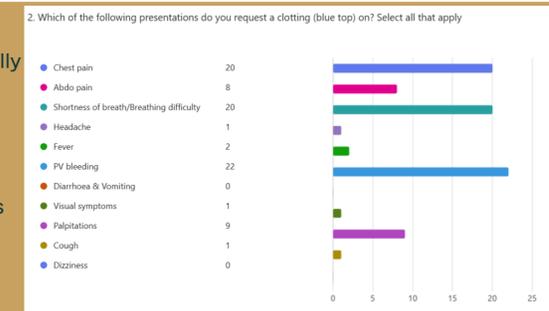
~80% staff agree we do too many blood tests

Results as of 31st March - JR only



Survey highlighted further education required, specifically for DOACs and surgical patients:

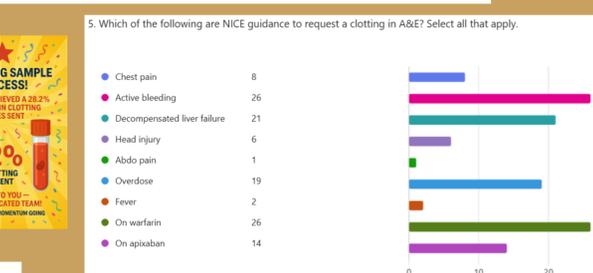
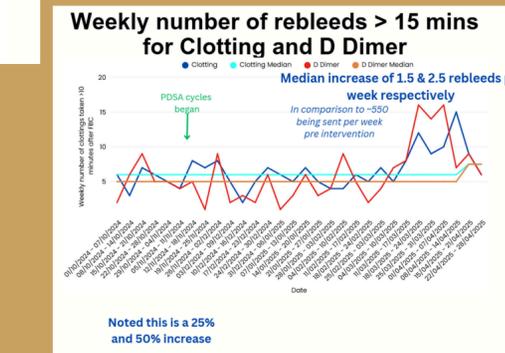
- Surgery clinical lead endorsed not sending clotting for these patients
- Further education via B6 and B7 nursing meetings and huddles



Celebrating success with eye catching messaging



Balancing measure: Number of rebleeds



- Small increase in proxy for delayed bleeds occurring long after introduction of intervention
- In reality this represents 3-5 patients being rebled every fortnight - contrast with >400 clotting screens not sent

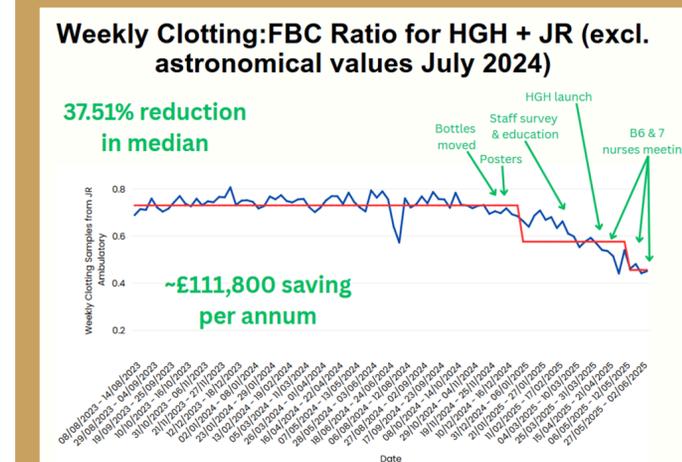
What next?

PDSA#3 in process:

- Scale up: Aiming for reduction in other blood tests sent when not clinically indicated e.g. LFTs, U&Es
- Spread: Continue initiation at the HGH ED
- Spread: Potential for involvement of surgical and Ambulatory Medical Units in both JR and HGH
- Sustain: linking with other ED projects e.g. Senior Decision Maker triage/SDEC to ensure change is sustained and minimise overinvestigation

Estimated savings of ~£111,800 per annum if sustained at this level

Results as of 2nd June - HGH and JR



- Within 9 weeks, significant change to median
- Change seems to be sustained

Discussion & Reflection

- Achieving cultural change in large organisations/groups is hard, but not impossible, even when you think you've not made much of an impact initially! Behavioural and cultural change are stronger than posters!
- Working group and forming multi-disciplinary links vital to success
- "The only thing worse than being talked about..." Memorable marketing and personal connections can be key in ensuring message is heard and acted upon: personality can be a great sales pitch and driver for change.
- Always seek out and address the views and concerns of those involved in the day-to-day process
- Even in a large centre with >200 staff, unnecessary investigations can be effectively decreased
- Project has made me more comfortable in requesting fewer investigations and adopting "Consultant mindset"



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PDSA #1 JR only:

- Bottles moved to different drawer to other blood tubes
- Posters and education

PDSA #2 - propagate and spread to HGH:

- Staff survey
- Targeted education
- Endorsement from surgical specialties
- Introduce at HGH ED
- Celebrate wins
- B6 & B7 nursing meetings

