

Proactive Vetting: Reversing the Trend of Rising On-Call Communication Demands

A 12-month digital transformation and culture change programme, re-designing the imaging referral pathway across two sites

Dr A.White^{1#}, Dr R.Smillie^{1#}, U. Valli², S. Taylor³, Dr C. Roberts⁴, Dr K.Ambalawaner⁴, Dr K. McDonald⁴

¹Radiology Registrar, ²Imaging Systems Lead, ³Superintendent Radiographer for PACS, ⁴Radiology Consultant, [#]Equal Contribution

Background

- Our centre has a single duty radiology registrar phone line covering two sites; a major trauma centre (Royal London Hospital) and a specialist cardiovascular & cancer centre (St Bartholomew's Hospital).

- Problem:** extremely high call volumes (Figure 1) created a severe operational bottleneck centred on the inability of the referring teams to get through to the duty radiologist.
- Cause:** increasing request volumes combined with a legacy non-scalable pathway which mandated a direct telephone conversation between the requesting clinician and Radiologist for every inpatient and emergency department CT and MRI request.
- Consequences:** delays to urgent and trauma related diagnostics; widespread frustration and formal complaints from referring teams unable to speak to the duty radiologist; documented incivility between referring teams and the duty radiologist; poor quality imaging requests as referring teams defaulted to relaying information verbally given a verbal conversation was mandated; failure to satisfy updated IR(ME)R Employer's Procedures that mandate a robust and traceable electronic system for justifying and placing imaging requests on hold.

Data Collection Methodology and Background Audit

- Detailed operational telecommunication metrics were extracted from the telecommunications system.
- Data extracted for the duty radiology registrar phone line, as well as the next three busiest registrar numbers (renal, medical, stroke) in addition to the Resus and bed manager numbers to act as comparator values.
- Baseline audit in March 2025 demonstrated:
 - 8,724 total inbound calls to the single duty radiology registrar phone line in one month (>2x more than the next busiest number, the renal registrar, as shown below).
 - 3,874 unanswered inbound calls to the single duty radiology registrar phone line in one month (44% of total).

Total Number of Inbound calls (March 2025 Baseline)

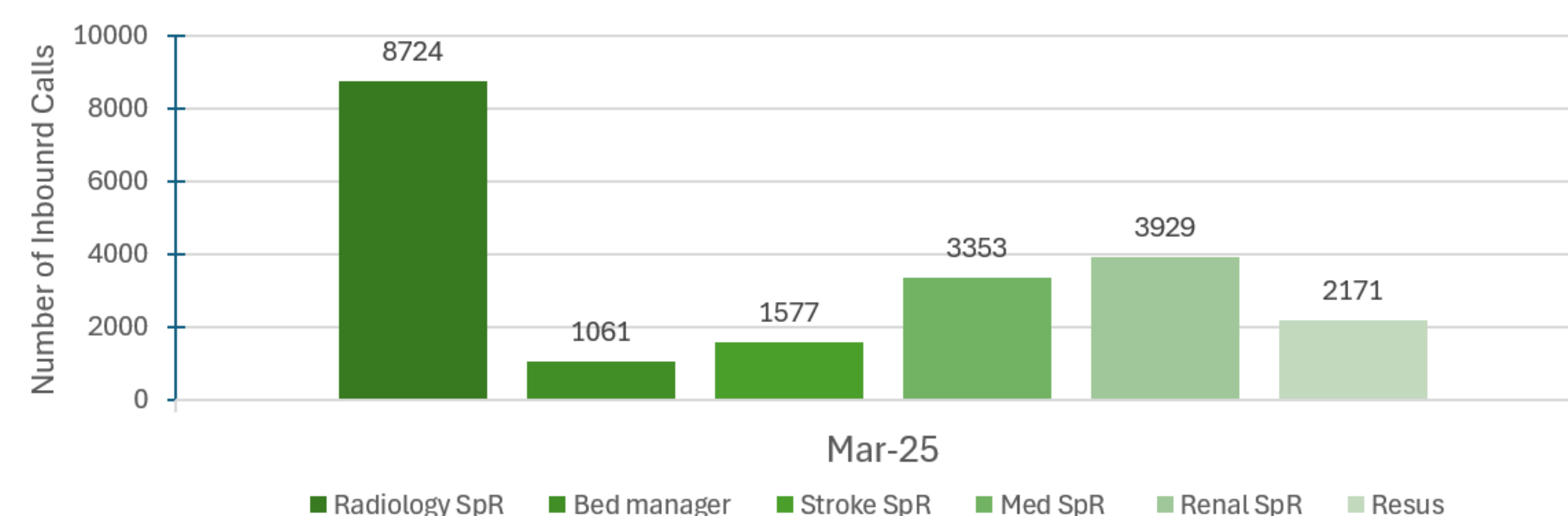


Figure 1: Baseline Communication Pressures (March 2025)

Initial audit data demonstrating disproportionately high inbound telephone traffic on the radiology registrar referral line relative to five acute hospital comparator roles prior to the implementation of proactive vetting.

QI Project Aims

- Multi-site workflow re-design in collaboration with key acute referring specialties to transition inpatient and emergency department imaging referrals from a reactive telephone-reliant system to a proactive electronic system.**
- Reduce total inbound calls to the duty radiology registrar phone line by 20% over 12 months.**
- Reduce the number of DATIX incidents and complaints related to unanswered calls.**

Outcome Metrics

- Total monthly inbound call volume to the duty radiology registrar phone line.
- Total monthly unanswered inbound call volumes on the duty radiology registrar phone line.
- Monthly inbound and unanswered calls from the emergency department (all phone lines) to the duty radiology registrar phone line.

Interventions

Phase 1: Building the proactive electronic workflow.

- Built dynamic electronic RIS lists allowing the duty radiology registrar to continuously review and vet incoming requests in real time rather than waiting for telephone contact.

Phase 2: Embedding transparency to make vetting decision visible

- Deployed a default Vetting Code column across all non-radiology clinician PACS account, providing referrers with visibility about whether a request is 'Approved' or 'On hold pending more information'.

- Phase 3: Culture change - building trust that the duty radiologist will review requests in real time and will vet within 1 hour**

- Tour of hospital inductions and departmental meetings informing colleagues about the new process & that a call to the duty radiologist is only needed for acute or complex issues.
- Individual conversations over the phone with referring clinicians reminding them about the new process (estimate 5x a day for a year = 1,500 conversations)
 - Close collaboration key acute referring specialties throughout.
- One-page overview of panoply of ways to contact the imaging department (including email) so colleagues contact the right person in the right way from the outset.

Year-on-year results

- Total monthly inbound calls to the duty radiology registrar phone line dropped by **27.8%** (8,724 → 6,300) as per blue line in Figure 2.
- Total monthly inbound calls from the emergency department fell by **42.6%** (1,034 → 594) as per green line in Figure 2.

- Unanswered monthly inbound calls to the duty radiology registrar phone line fell **52.9%** (3,874 → 1,825) as per red line in Figure 3.
- Unanswered monthly inbound calls from the emergency department fell **69.3%** (349 → 107) as per yellow line in Figure 3.

- The wider hospital has become busier; when aggregating the 5 comparator numbers to create a control group, inbound calls increased by **24.7%** (12,091 → 15,076) and unanswered calls increased by **16.8%** (5,096 → 5,951). See orange line in Fig 1 and grey line in Fig 2.

Estimated time and value savings

- Assuming the duty radiology registrar phone line had followed trend of comparator numbers then 8,724 inbound calls per month in March 2025 would have increased by 24.7% to 10,879 calls per month by March 2026.
- Therefore, in the final month of our project there was a *theoretical* saving of 4,579 calls per month (10,879 minus 6,300).
- In the final month, the average length of a conversation / ring without answer to the radiology registrar phone line was 88 seconds.
- Saving 88 seconds per call for both the caller and receiver is equivalent to **224 hours per month of Trust time saved.**

- The average caller is an SHO, average receiver is an ST1/2 radiology SpR (SHO equivalent in salary terms).
- 88 seconds at SHO salary (£55,355 for 40 hours per week) = costs the Trust approx. £0.75; each call costs the Trust approx. £1.50.
- 4579 calls at £1.50 per call is equivalent in value to **£6,868 per calendar month saved.**

Results

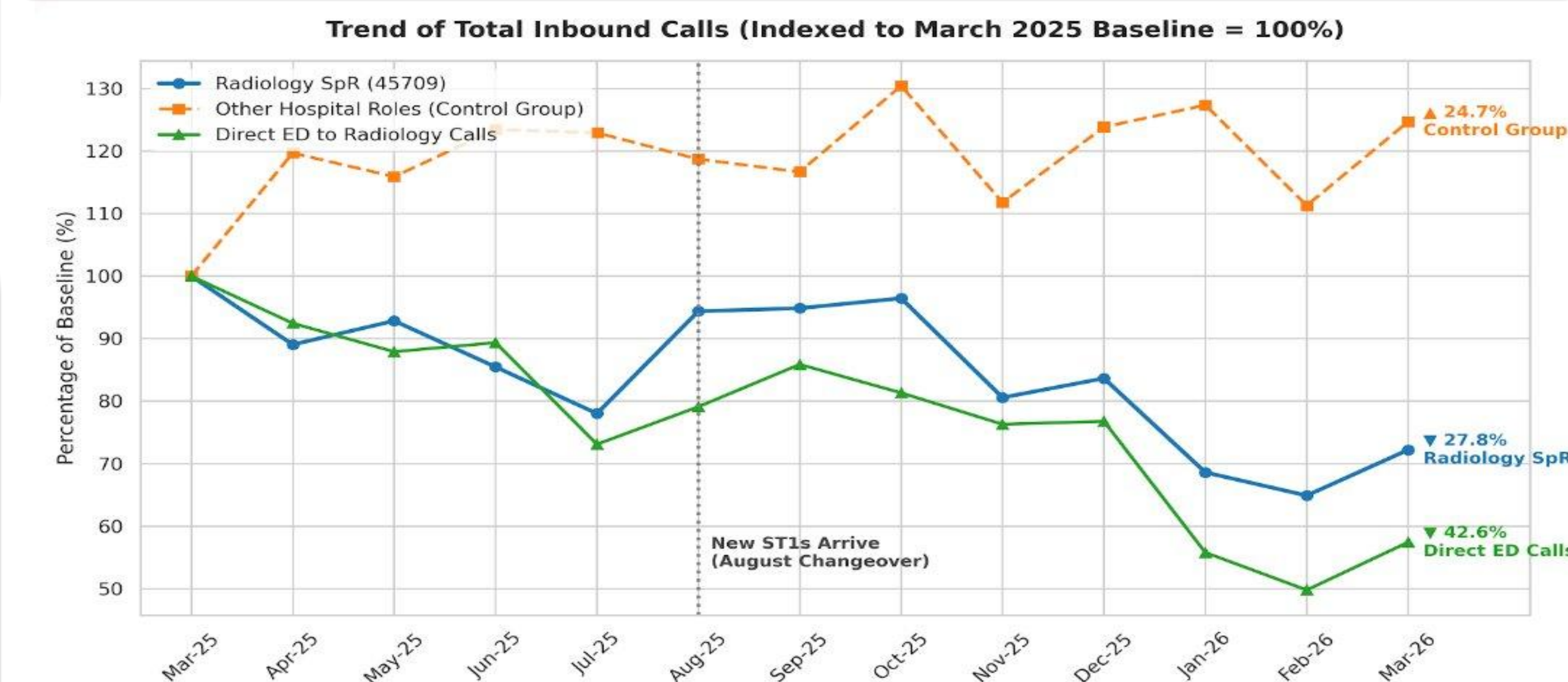


Figure 2: total monthly inbound call volumes

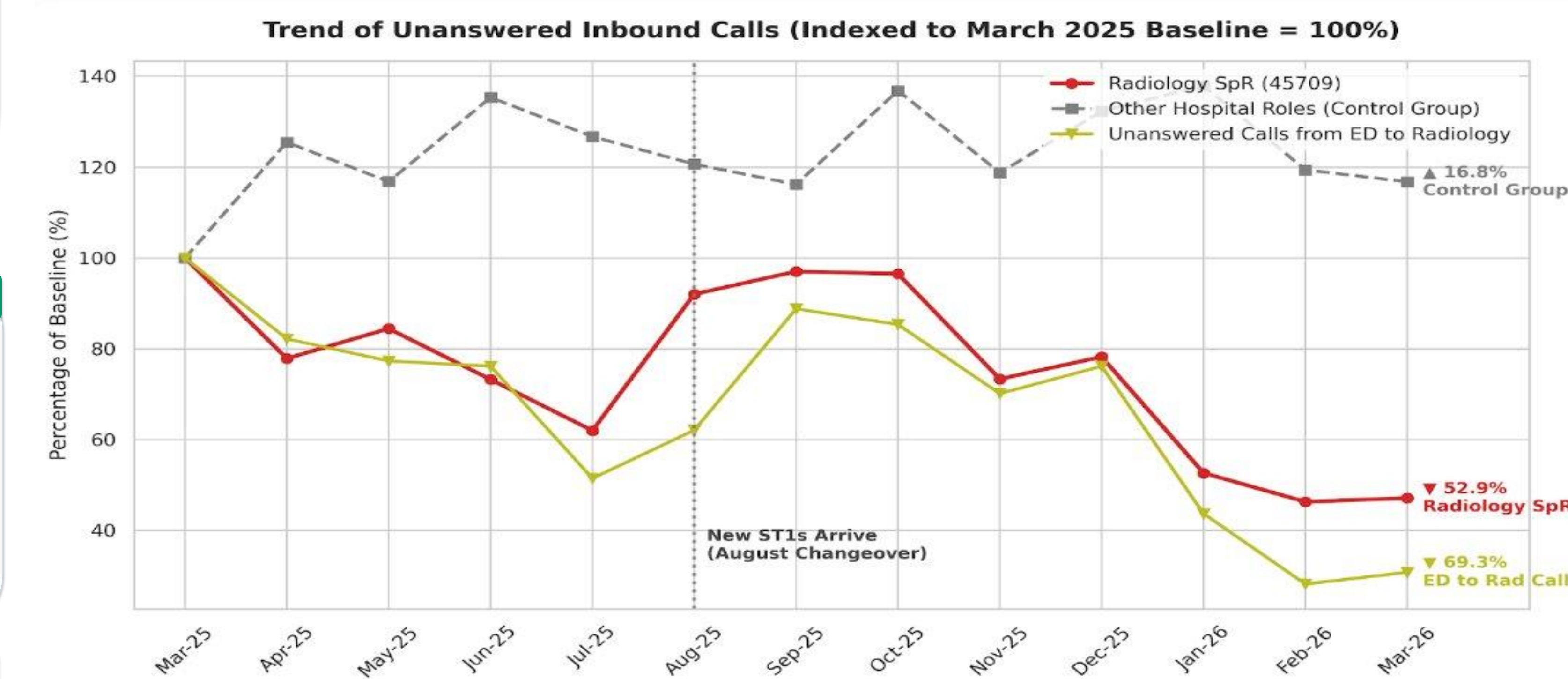


Figure 3: total monthly unanswered inbound call volumes

Discussion

- Proactive vetting successfully reversed the in-year trend of increasing clinical communications across our organisation. Divergence from comparator specialties and measuring March 2025 vs March 2026 confirms this improvement was driven by digital workflow redesign, not by wider system pressure easing.
- The dramatic fall in unanswered emergency department calls improved our inter-departmental relationship with ED, replacing friction-heavy discussions with a collaborative, transparent workflow.
- Widespread trust in vetting in 1 hour without needing a phone call has led to higher quality requests and this has triggered a positive feedback loop centred around time saving.