

Performance and Safety of a Virtual Vitreoretinal Surgical Triage Pathway: A Retrospective Audit of 154 Patients

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Introduction:

Virtual triage models are established in medical retina and glaucoma.¹ Vitreoretinal surgery relies on high-risk diagnostic decision-making, yet despite the potential for patient and service level benefit,²⁻³ virtual triage pathways in this context remain under-evaluated. We evaluated the performance of a virtual vitreoretinal clinic (VVRC) newly implemented at Southend University Hospital.

Methods:

- Retrospective audit of a consultant-led VVRC (Mar–Sep 2025)
- Patients attended an imaging hub (VA, autorefraction, OCT, widefield imaging) with a standardised symptom questionnaire
- Cases were reviewed remotely by a vitreoretinal surgeon, with direct patient contact for counselling or surgical consent
- Outcomes included triage category, face-to-face (F2F) escalation reasons, surgical listing, and time intervals

Results:

- 154 patients (191 eyes), mean age 70.4 years
- Virtual triage outcomes (Figure 1) show 61.6% reduction in hospital footfall
 - Discharged (27.9%)
 - Virtual followup (17.5%)
 - Surgical listing (15.6%)
 - Rebooked to another clinic (11.7%)
- Indications for virtual clinic surgery listing (Figure 2)
- Reasons for F2F escalation (Figure 3) shows only minority unavoidable
 - Inappropriate for virtual as peripheral exam necessary (29.1%)
 - High complexity discussion and decision (12.7%)
- Flow chart of pathway from virtual referral to surgery (Figure 4)
- Notably detected previously undiagnosed retinal detachments and tears

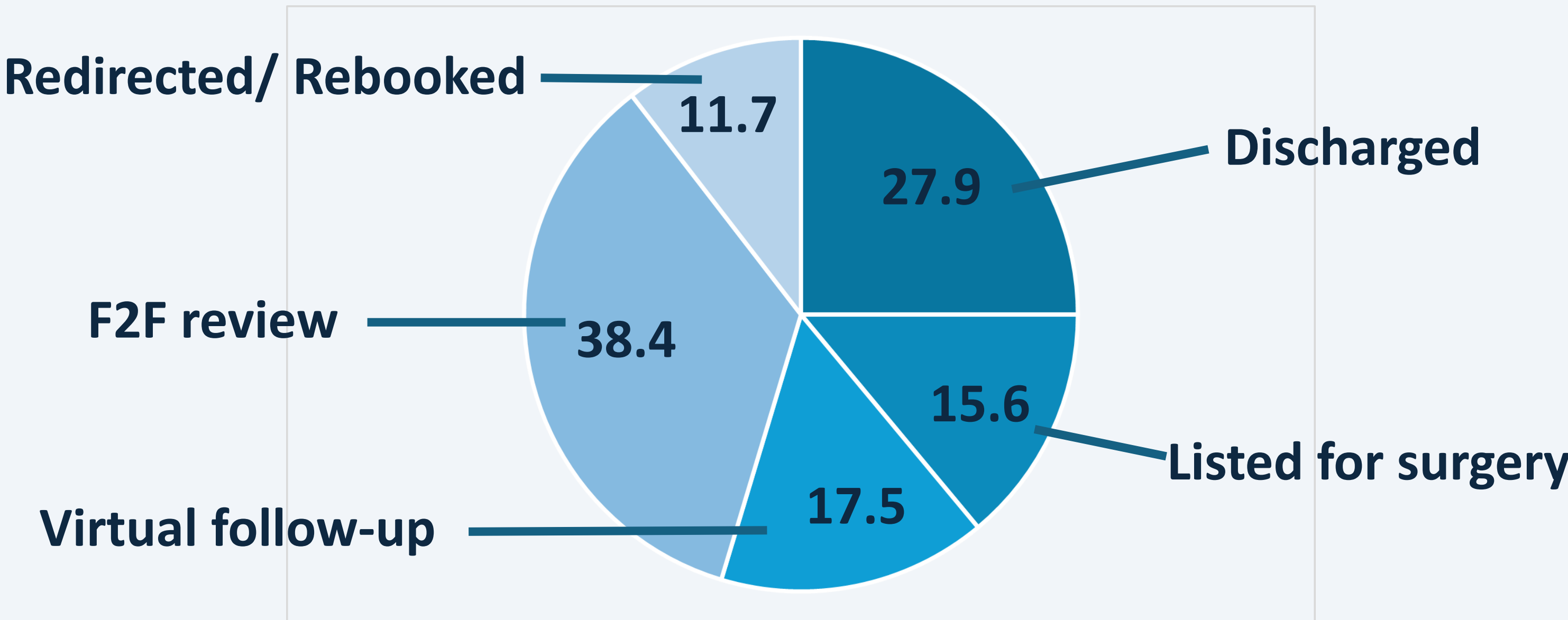


Figure 1. Virtual triage outcomes (n = 154 patients)

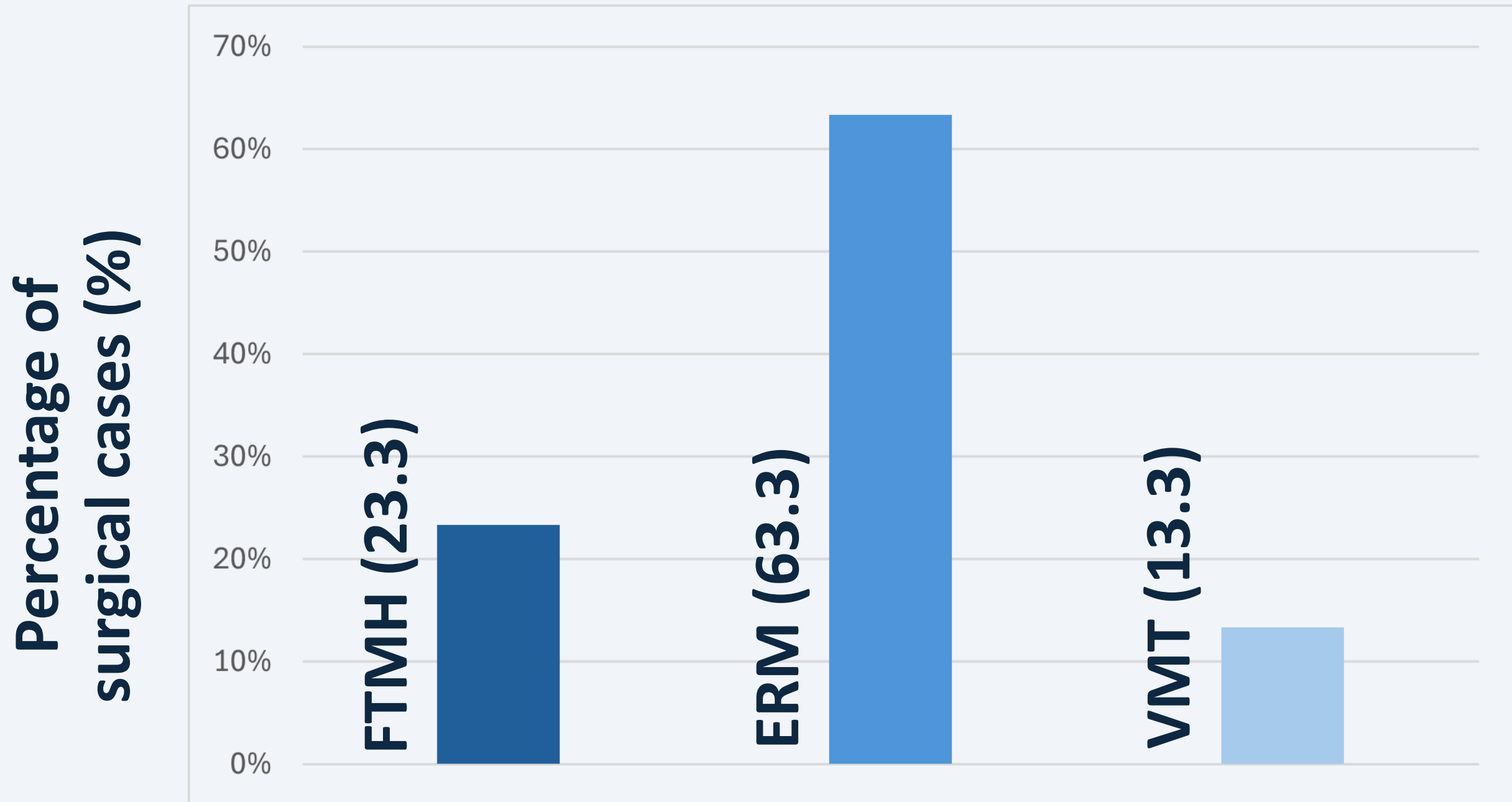


Figure 2. Indications among patients listed for surgery (n = 24)

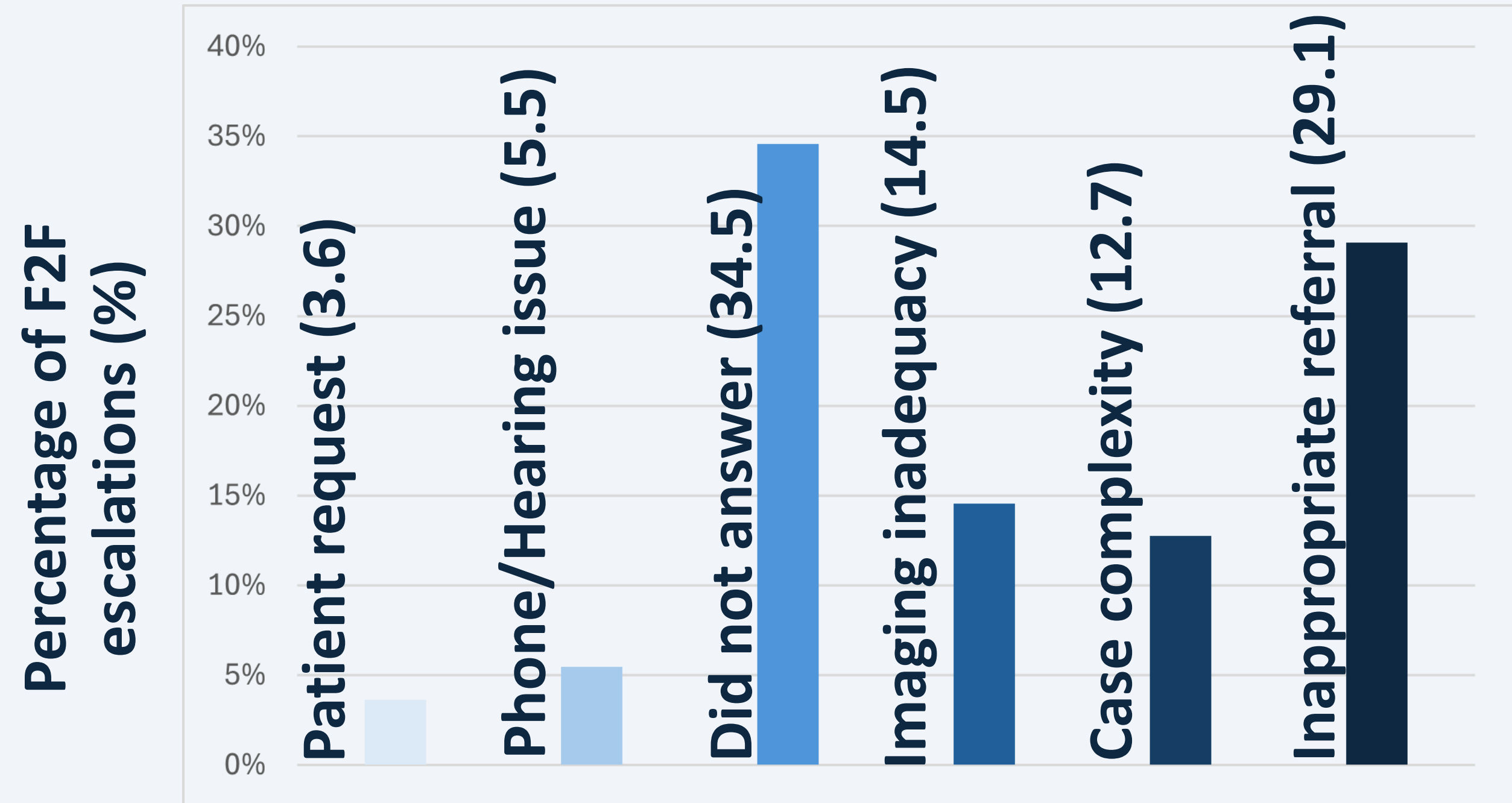


Figure 3. Reasons for escalation to face-to-face review (n = 60)

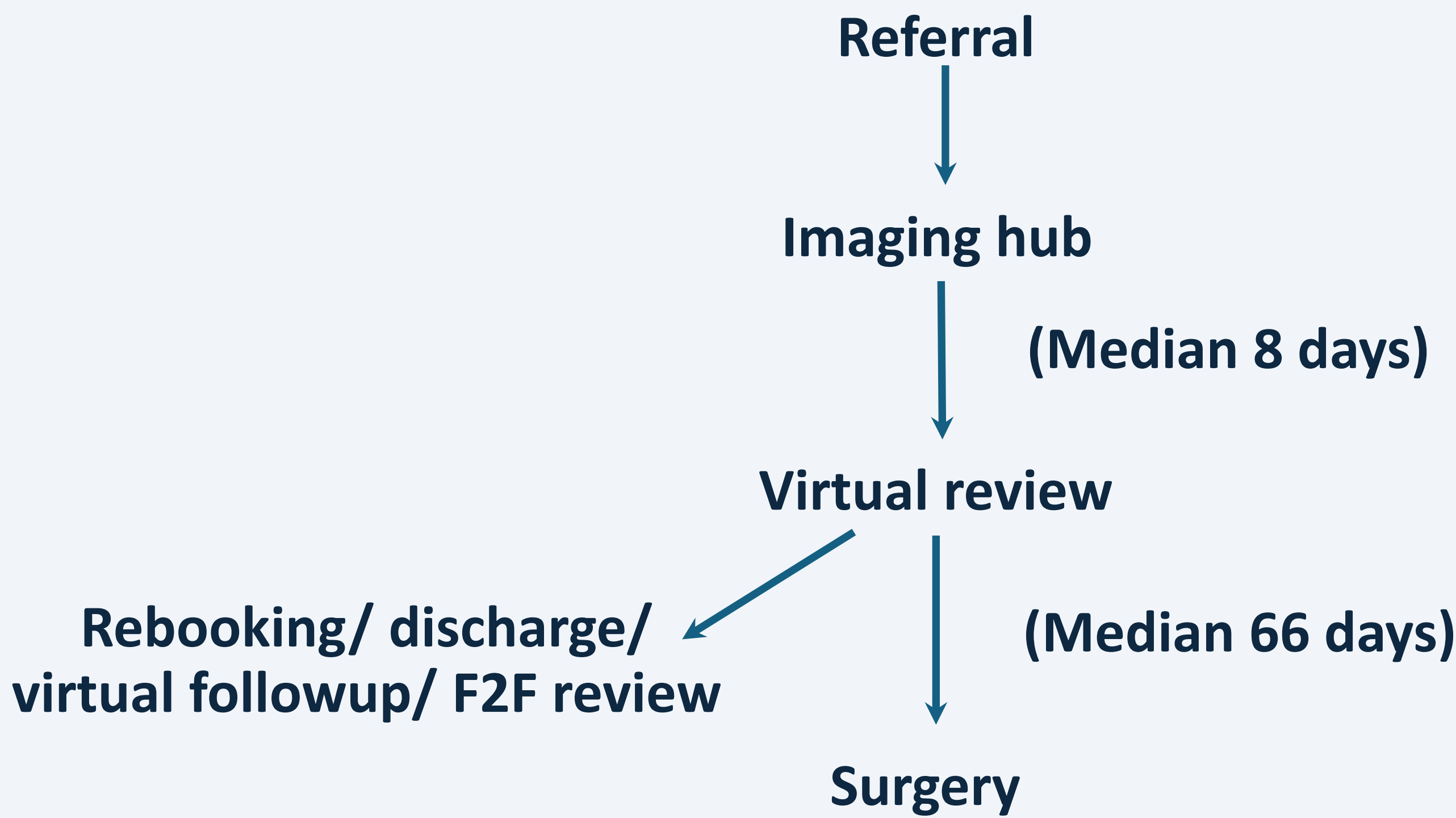


Figure 4. Median pathway from imaging to surgery

Conclusion:

- Majority avoided F2F review, reducing clinic burden
- Surgeries listed directly from virtual review
- Imaging safely identified unexpected sight-threatening pathology (RD, HST)
- Most F2F escalations were avoidable system issues
- VVRC is a safe, scalable NHS triage model

“61.6% of referrals avoided need for in-person review showing virtual triage can safely reduce NHS burden”

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