Evaluation of a Virtual Multidisciplinary approach to decision-making in ROP management

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Introduction

The sustained provision of a robust Retinopathy of Prematurity (ROP) screening service in Northern Ireland has become more challenging in recent times due to the increasing survival rate of very premature infants, resulting in an increased workload and pressure on individual ROP screening Ophthalmologists. A TeleROP-NI regional model for ROP screening was developed to meet this challenge, enabling imaging of infants across neonatal units in Northern Ireland by non-Ophthalmologist ROP imagers with subsequent Multidisciplinary Team (MDT) collective decision-making for infants developing ROP. This would offload burden of screening to imagers, reducing cost per screen. Additionally, this would free Ophthalmologist time whilst improving satisfaction of practice and shift cultural change around a dwindling workforce.

Methods

This study used qualitative methodology, specifically thematic analysis of focus group data, through a series of questions that were answered by members of the MDT, comprised of Treaters/Screeners/Imagers/Trainees/Administrators. Various parameters were quantitatively analysed indicating value of MDT (1-10, 1 least and 10 most) and cost-benefit of telemedicine approach.

Figure 1: Uploaded ROP images to Electronic Care Record

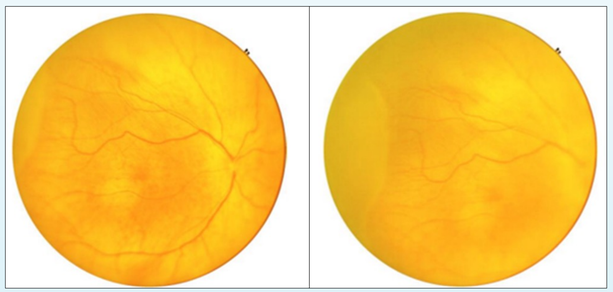


Figure 2: Paediatric ROP MDT Tuesday meeting discussing cases



Results

Figure 3: Quantitative questionnaire responses from members of MDT.

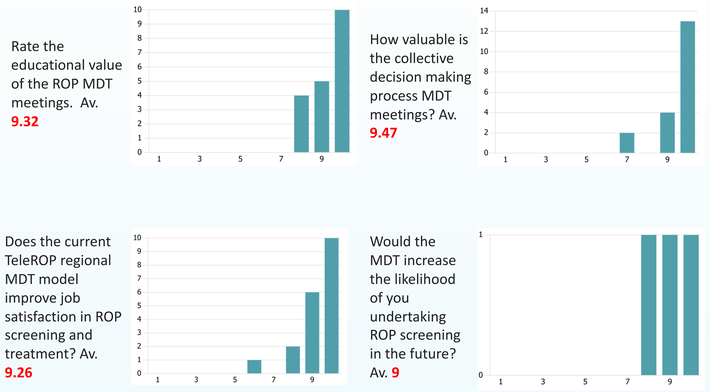


Figure 4: Qualitative questionnaire responses from members of MDT with a sample of direct quotes and themes

Direct Quotes	Overarching Themes
• 'Invaluable knowledge is shared regarding every aspect of ROP'	• Collective decision making ensures best outcomes
• 'Pathology and ethical issues also learnt about through discussion'	• Discussion educates all members of MDT
• 'Less isolating, reduces stress and anxiety knowing decision is collective'	• Excellent forum for learning
• 'Previously the weight of these decisions and any adverse outcomes lay heavy on one person'	• Supports trainees academically and pastorally
• 'Provides moral support when looking after small vulnerable babies'	

Conclusion

- Improved communication between regional ROP MDT
- Collective decision making/ helps when making a difficult call *to treat* or *not to treat*
- Excellent governance structures
- Opportunity to discuss emerging issues in ROP screening regionally (concerns re eye drops/ apnoea/ bradycardia intra/post screening, technical issues, resource issues with ROP screening equipment).
- Excellent weekly teaching opportunity and shared learning for MDT
- Supportive service which fosters a culture of learning and development
- Encourage future ROP screening workforce and reduce employee attrition

References

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