

# Physical Activity and Technology in ERAS

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## Background

Enhanced Recovery After Surgery (ERAS) is a multi-faceted paradigm with difficulties quantifying the contribution of each component. A further challenge is monitoring how well ERAS is implemented on an individual level. Given the recent technological advances in wearable activity sensors, physical activity is one component that could be assessed.

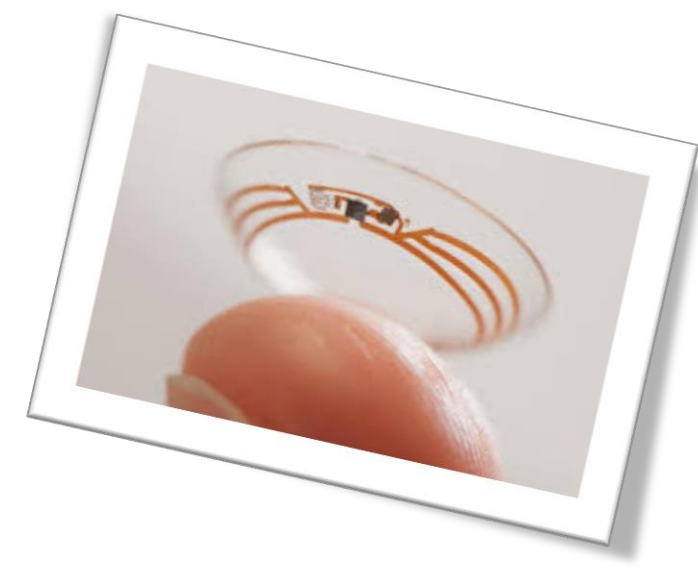
## Aims

- To explore current opinions of technology within ERAS
- To establish areas of ERAS that could benefit from technology
- To explore how physical activity is viewed by the MDT
- To determine if technology is currently used to monitor physical activity within the ERAS protocol



## Methods

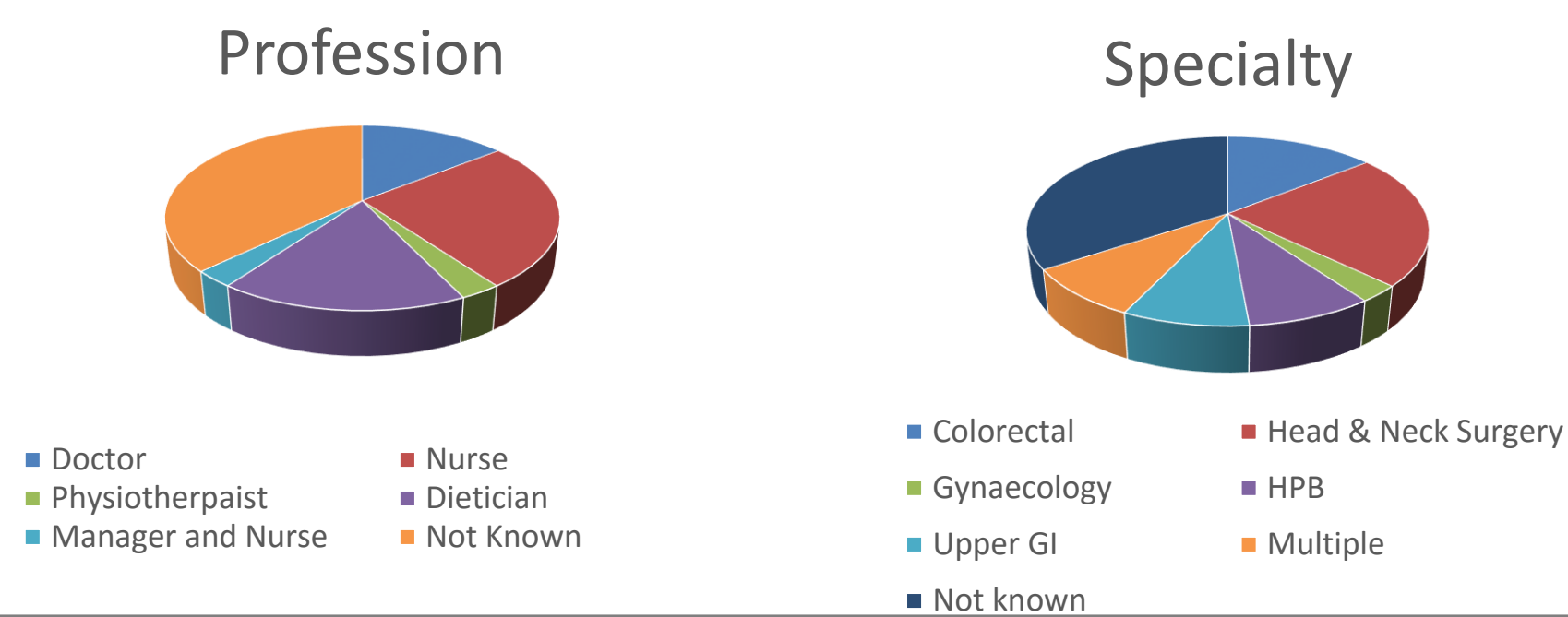
- Questionnaire study
- Multi-disciplinary cohort
- Attendees at London ERAS Workshop March 2015



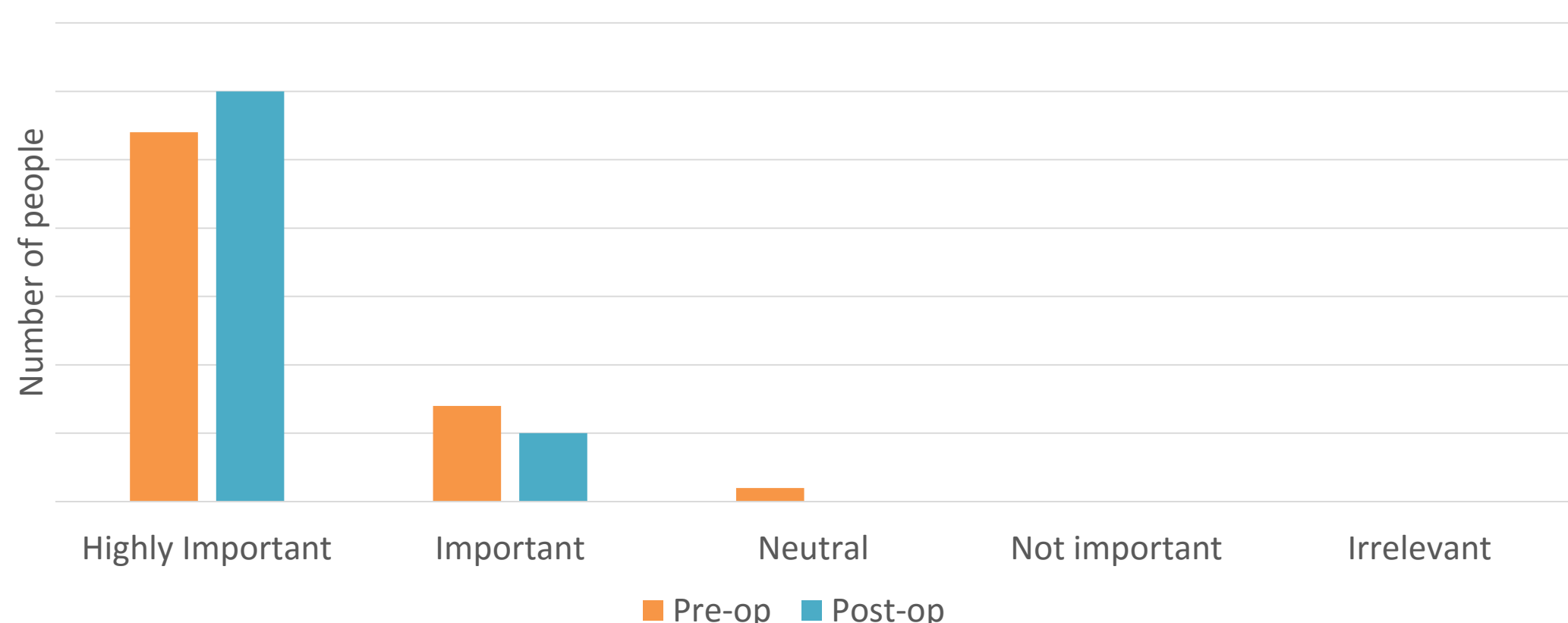
## Results

- 62% thought that activity optimisation was an area that would benefit from using technology in the future
- 60% thought that mobilisation post-operatively would benefit from using technology

## Demographics of responders

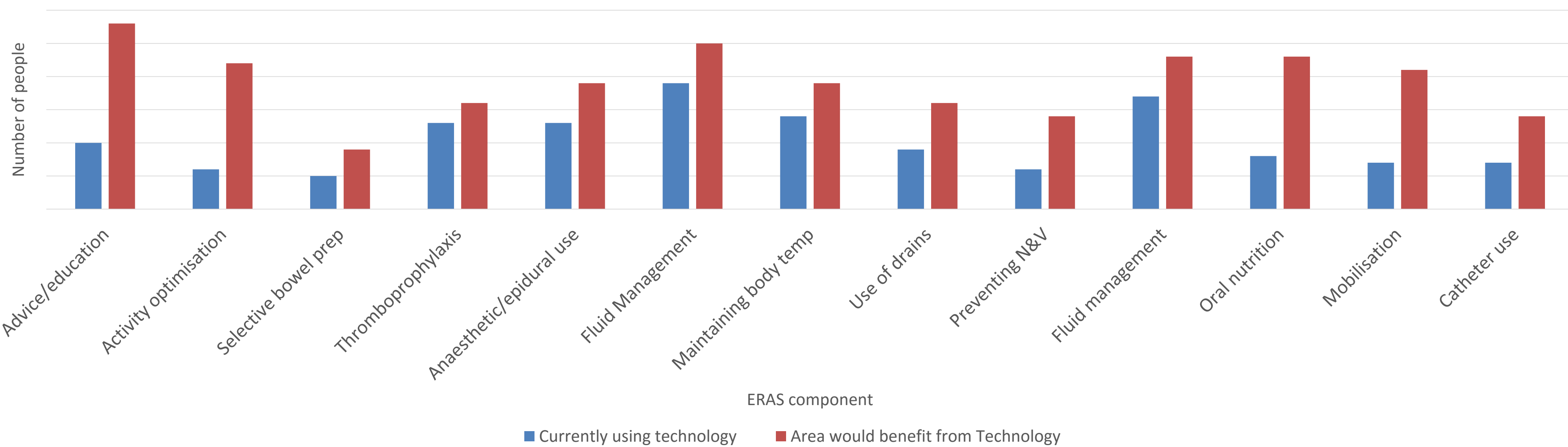


How respondents valued physical activity as a component of ERAS



- 97% of respondents thought that physical activity was highly important/important pre-operatively
- 100% thought physical activity was highly important/important post-operatively
- Only 9% of respondents said technology was currently used for monitoring activity pre or post operatively

MDT participants opinions on technology and ERAS



## Conclusion

Physical activity is an important component of ERAS. The use of technology in monitoring and assessing physical activity is thought to be of benefit by members of the multi-disciplinary team, however, currently there is only minimal use of technology in this area. We are conducting a study using wearable activity sensors to monitor patient activity in the perioperative period, showing its feasibility and utility.

## References

- Gustafsson et al. Guidelines for perioperative care in elective colonic surgery: Enhanced Recovery After Surgery (ERAS(R)) Society recommendations. Clinical nutrition. 2012;31(6):783-800.
- Appelboom G, Yang AH, Christophe BR, Bruce EM, Slomian J, Bruyere O, et al. The promise of wearable activity sensors to define patient recovery. Journal of clinical neuroscience : official journal of the Neurosurgical Society of Australasia. 2014;21(7):1089-93.