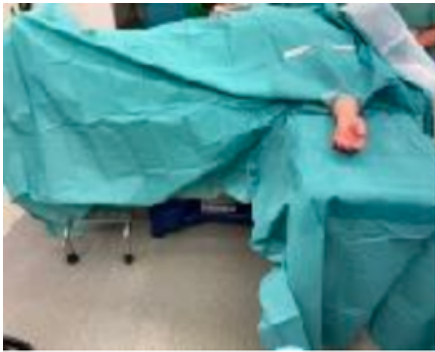


# Sustainable Day Case Hand Surgery: A Paradigm Shift

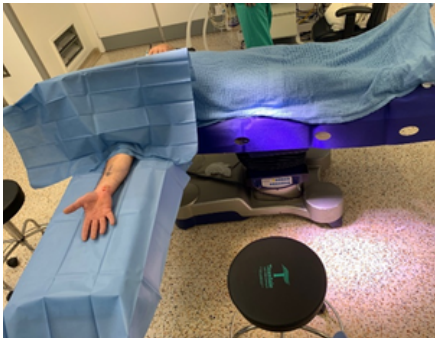
Can we improve productivity, reduce waste and maximise the patient experience in day case minor hand surgery?

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Conventional theatre set up for local anaesthetic minor hand surgery

- Large amounts of waste
- Energy and carbon intensive
- Expensive
- Stressful for the patient



Outpatient procedure room lean setup

- Cheaper (>65%)
- More productive, just as safe
- 90% carbon reduction, less waste generation
- Uses less hospital resources

## Progress so far:

For the last 2 years we have slowly ramped up this service both Ysbyty Gwynedd and Wrexham Maelor. In my hospital in Bangor, progress has been initially slow, but now we have completed over 130 cases, through our minor ops pathway. These include carpal tunnel surgery; tendon releases; lumps and bumps; simple trauma cases such as tendon repairs and removal of foreign bodies; and some complex procedures too such as digital contracture releases and tendon transfers.

This has unlocked at least 10 full days of operating theatre time for more major cases, thus creating capacity elsewhere. What started as an innovative pilot, has now simply become the way we work. Through the adopt and spread process, our methods have been taken up by the other hand surgeons in my hospital, and by a surgeon at our sister hospital Ysbyty Glan Clwyd. With Mr Kodumuri at Wrexham also pioneering this way of working, it means that more than half of local anaesthetic hand surgery operations in North Wales are now performed through a lean green outpatient pathway.

We have had overwhelmingly positive feedback from patients and staff alike. We have presented our findings nationally and internationally and have received many accolades. We were proud recipients of the Sir Mansel Aylward Prize for innovation in 2024. Thanks to the Bevan Commission for everything!

## Publications

- 1.Reducing the carbon footprint in carpal tunnel surgery inside the operating room with a lean and green model: a comparative study. <https://pubmed.ncbi.nlm.nih.gov/37226468/> (Prize for the top 10 papers in the journal for 2023)
- 2.Sustainable Hand Surgery: Incorporating Water Efficiency Into Clinical Practice. <https://pubmed.ncbi.nlm.nih.gov/37728568/> (Prize at Royal Society of Medicine conference)
- 3.Ong CS, Rahman KR, Saqib MW, Jesudason EP. Green Surgery: Save the Suture, Save the Future, British Journal of Surgery, Volume 110, Issue Supplement\_6, September 2023
- 4.Jesudason EP. Pushing sustainability up the surgical agenda. Practical steps towards sustainable orthopaedic care. Orth & Tr. 36 (5) October 2022, 274-278