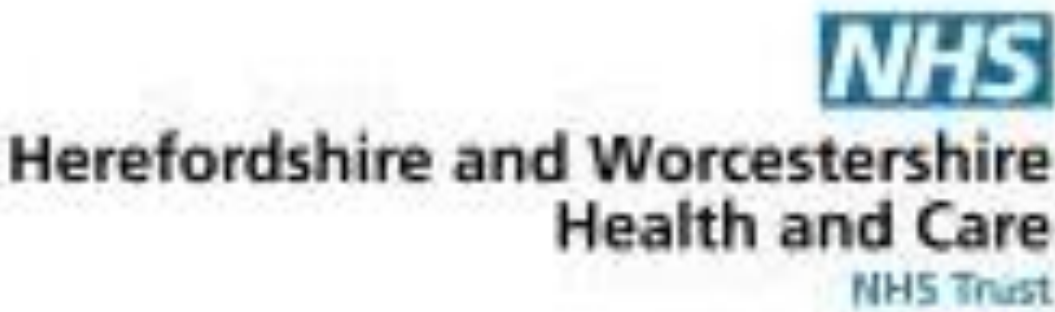


# Improving Sustainability within Orthopaedics – Lessons Learnt from the use of a Minor Operations Theatre for Elective Upper Limb Orthopaedics

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## Introduction

The NHS currently accounts for almost **40% of public sector carbon emissions** and aims to cut this to be carbon neutral by 2040. We have been reflecting on this impact in our District General Hospital and as a result have implemented a **minor operations (MOPS) theatre** where we are currently performing elective upper limb procedures using a **Wide-Awake Local Anaesthetic No Tourniquet (WALANT)** technique.

## Results

**139 procedures** were performed in the 3-year period. The average case performed in main theatres generated **2.57Kg of waste**, compared to a MOPS case which generated **0.85Kg**, a **67% reduction**. This saved almost 80Kg of waste on average each year. The CO2 emissions reduced from this is around **235Kg per year**, slightly more than the emissions produced from a **return flight from London to Lisbon**.

## Methods

We have **prospectively** collected data from all elective upper limb cases performed in our MOPS theatre over a **3-year period**. Patients were pre-operatively assessed and were included if deemed to be suitable for a local anaesthetic and consent had been given. Joint Injections were not included. Procedures performed included **carpal tunnel decompressions, ulnar nerve decompressions, trigger finger release** and **Dupuytren’s fasciectomies**.

| Procedure                      | No. Performed |
|--------------------------------|---------------|
| Carpal Tunnel Decompression    | 92            |
| Ulnar Nerve Decompression      | 15            |
| Digital Fasciectomy            | 5             |
| Removal of Foreign Body        | 1             |
| Excision of Ganglion           | 5             |
| Excision of Soft Tissue Lesion | 1             |
| Tennis Elbow Release           | 2             |
| Extensor Tendon Reconstruction | 2             |
| Trigger Finger Release         | 13            |
| Excision of Cyst               | 1             |
| Primary Repair of Tendon       | 2             |



Image 1 - Photograph of the equipment used for a case in main theatres



Image 2 - Photograph of the equipment used for a case in the MOPS theatre

## Discussion

Advantages of the MOPS set-up:

- Use of **Less Consumables** - a single refined instrument tray, fewer drapes and single surgeon operating.
- **Well received by patients** – able to drive themselves to the appointment,
- **Financial Savings** – as no inpatient bed, less staff and less electricity usage
- Reduced **Electrical** and **Water** Usage
- Frees-up theatre space for other cases

Lessons Learnt from the MOPS set-up:

- **Rationalising trays** to ensure only required equipment is used
- A lot of waste in theatres is secondary to **overage** and **packaging**
- **Recycling** of non-contaminated packaging should be reviewed