



AIM: decrease disposable blue pad use for peripheral IV insertions by 80% at BC Cancer Surrey Systemic Therapy Department by August 16th 2024.

Introduction

CURRENT STATE: All patients requiring peripheral IV insertions at BC Cancer Surrey (systemic therapy department) are wrapped in a warm moist towel which is covered in a plastic disposable blue pad.

Background information

- disposable blue pads contain microplastics (specifically polypropylene) which decomposes in landfills --> can contaminate water supply with potential for microplastics to be found in drinking water (WHO, 2019)
- potential for increased risk of cancer (colorectal) (Li et al., 2023)

Approach / Methodology

A) baseline measurements

following data was collected over 5 days

- how many attempts (on average) were made for each peripheral IV: **1.25 per patient**
- average number of disposable blue pads used per day: **71**
- average number of blue pads used in a week: **355**

B) Data collected

- the number of blue pads used for peripheral IV starts during the trial and compared to baseline data
- approximately 3-4 blue pads used per day for IV starts post-trial
- Qualitative feedback obtained from nurses

What I aimed to accomplish

- reduce amount of waste generated by systemic therapy department
- reduce amount of microplastics used
- encourage use of other methods to hot pack patients' arms/hands prior to peripheral IV insertion

changes made during trial period

- moist hot packs for peripheral IV insertion were wrapped in a dry towel (instead of a disposable blue pad) from Aug 1st-16th
- nurses could use towel-in-towel, dry heat or no pre-warming method

RESULTS

- results: blue pad use for peripheral IV insertions decreased by **90-95%**
- saved ~320 blue pads during trial period
- potential to keep **15,379** disposable blue pads out of landfill per year

CHALLENGES

- patient dissatisfaction
- moist IV packs are bulky and take up chairside space
- towel-in-towel heat packs cool off much more quickly than ones wrapped in disposable blue pads
- Towels cool off quickly for nurses working farther away from warming station

GOING FORWARD

- Look at potentially procuring a small reusable soaker pad for heat packs
- Encourage staff to continue to assess veins prior to IV insertions - not all patients require a disposable blue pad for insertions
- potential for pods closer to warming station to use towel-in-towel method

