



JABS TO TABS

WHY ORAL IS THE NEW IV

KRISTI KOZIEROWSKI

NOVEMBER 2023

BENEFITS OF IVOS

(IV-TO-ORAL SWITCH)

- **Reduced catheter-related BSI**
- **Reduced hospital LOS**
- **Reduced costs**
 - Reduced drug-acquisition costs, administration costs and hospitalisation costs
- **Reduced probability of medication-related errors and incidents**
 - Owing to complexity of reconstitution, dilution, dose calculation, infusion-rate calculation
- **Fewer adverse events**
- **Improved patient experience**
- **Smaller carbon footprint and more sustainable healthcare system**
- **Increased nursing capacity and time-to-care**
- **Reduced requirement for therapeutic drug monitoring (TDM)**



ADMISSION COST

Admission Type	Estimated Cost/Day
Inpatient - JHH	\$1100
Inpatient - OPAT	\$250
Discharged (with or without PO antibiotics)	Priceless



PRICELESS

PATIENT EXPERIENCE

Semi-structured interviews – 12 patients

- Patient perception that IV therapy was “better” than oral
- 75% preferred oral route on initial questioning
- Disadvantages to IV administrations:
 - Pain or discomfort
 - Inconvenience associated with movement limitations
 - Problems finding and maintaining cannulas & fear of needles
- 92% preferred oral route once assured that routes equally effective



SUSTAINABILITY

Medicines are responsible for **22%** of NHS' carbon footprint

Life-cycle analysis assessing greenhouse gas emissions (expressed in 'carbon dioxide equivalents' (CO₂e)) associated with all stages of production, use and disposal.

Medication	PO	IV
Amoxicillin 500mg TDS PO vs 500mg TDS IV)	0.6 kgCO ₂ e	6.7 kgCO ₂ e
Ciprofloxacin (500mg BD PO vs 400mg BD IV)	1.4 kgCO ₂ e	100.1 kgCO ₂ e

WORKFORCE COMMITMENT

Medicines administration time-and-motion study – looking at all processes associated with ward-based medicines preparation, administration & disposal

Route of administration	Mean administration time	IQR
Intravenous (IV)	22 mins	5.5 minutes
Enteral (PO)	1.3 mins	0.4 minutes

More than **20 minutes** of additional nursing input required when comparing IV medicine administration to oral medication administration

SIMPLE SAVINGS

Ampicillin IV to Amoxicillin PO Switch

Route of administration	Mean administration time/day	Greenhouse gas emission/day
Intravenous (IV) Ampicillin 2g Q6H	88 mins	3.8 kgCO ₂ e
Enteral (PO) Amoxicillin 1g Q8H	3.9 mins	0.2 kgCO ₂ e
Saving	84.1 mins (1.4 hours)	3.6 kg CO₂e

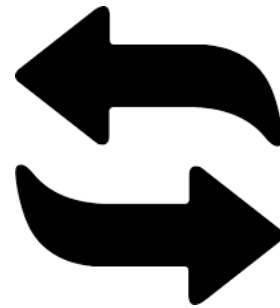


SIMPLE SAVINGS



195

prescriptions



10%

IVOS



20 hours

of nursing time

IV-TO-PO SWITCH



Happy Patients

Happy Nurses

Happy Environment

Happy Execs

Happy AMS Team