Safer, Better, Faster: Improving Cardiac Care at Morriston Hospital

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From Ward Cover to MDT Partnership

- Years of embedded cardiology pharmacy experience created a strong commitment to improving patient care and outcomes
- Despite proactive ward-based pharmacy support, medicines optimisation was often delayed by fragmented processes and reliance on junior doctors to implement multiple changes
- This created inefficiency and risked missed opportunities to optimise treatment at critical decision points
- We observed that the daily cardiology ward round was where definitive clinical decisions were made for all patients under the cardiology take
- Ad hoc pharmacy attendance demonstrated clear value, but lack of consistency limited impact and sustainability
- We recognised that pharmacy input was needed at the point of decision-making, not after decisions had already been made
- Embedding a prescribing pharmacist within the cardiology MDT enabled real-time optimisation, reduced duplication, and improved clinical flow
- This model also offered clear financial benefit through earlier optimisation of high-cost medicines and more efficient care
- Local support was secured to establish a dedicated prescribing pharmacist as a core member of the cardiology MDT

IMPACT DATA - IMPROVED PRESCRIBING SAFETY

	Doctors/Nurse practitioner Prescribers	Pharmacist Prescriber
Prescribing error rate on discharge	22%	1.4 %

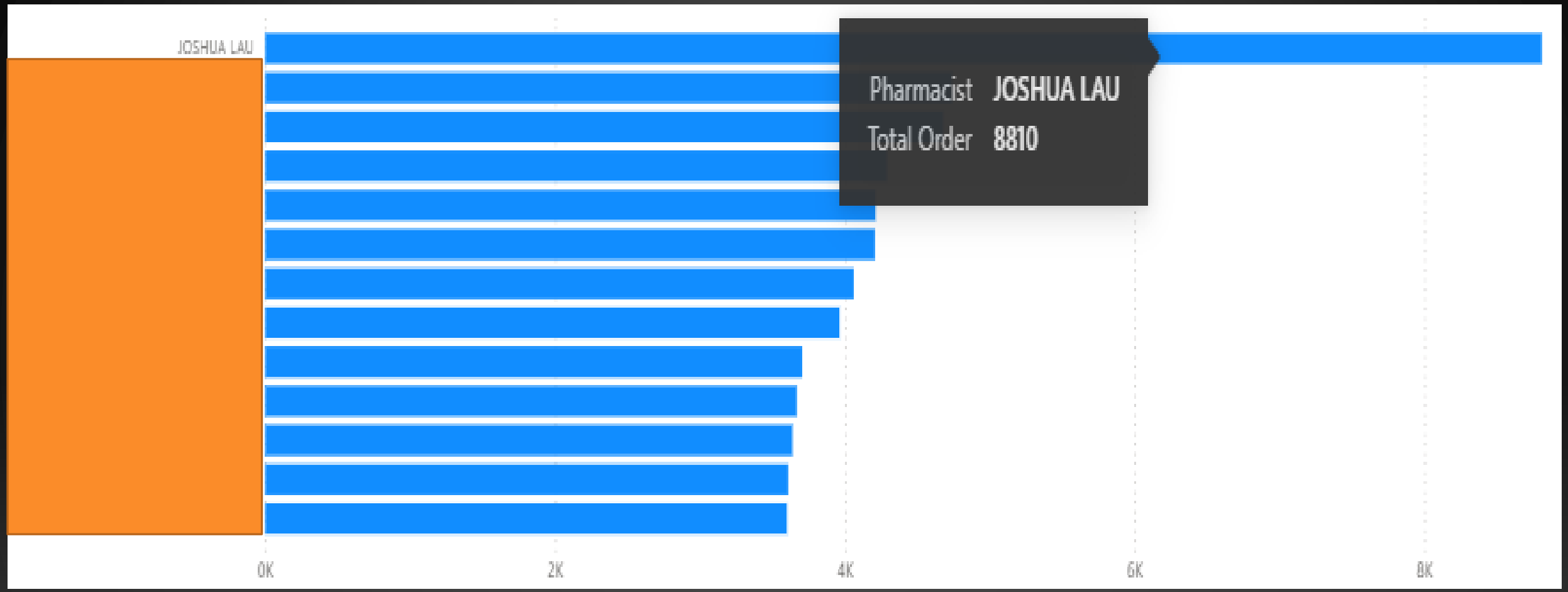
- Shows that Pharmacist led discharge prescribing led to less errors, clear and accurate transition of care and improved communication to GPs and community pharmacies.

Medication Optimisation

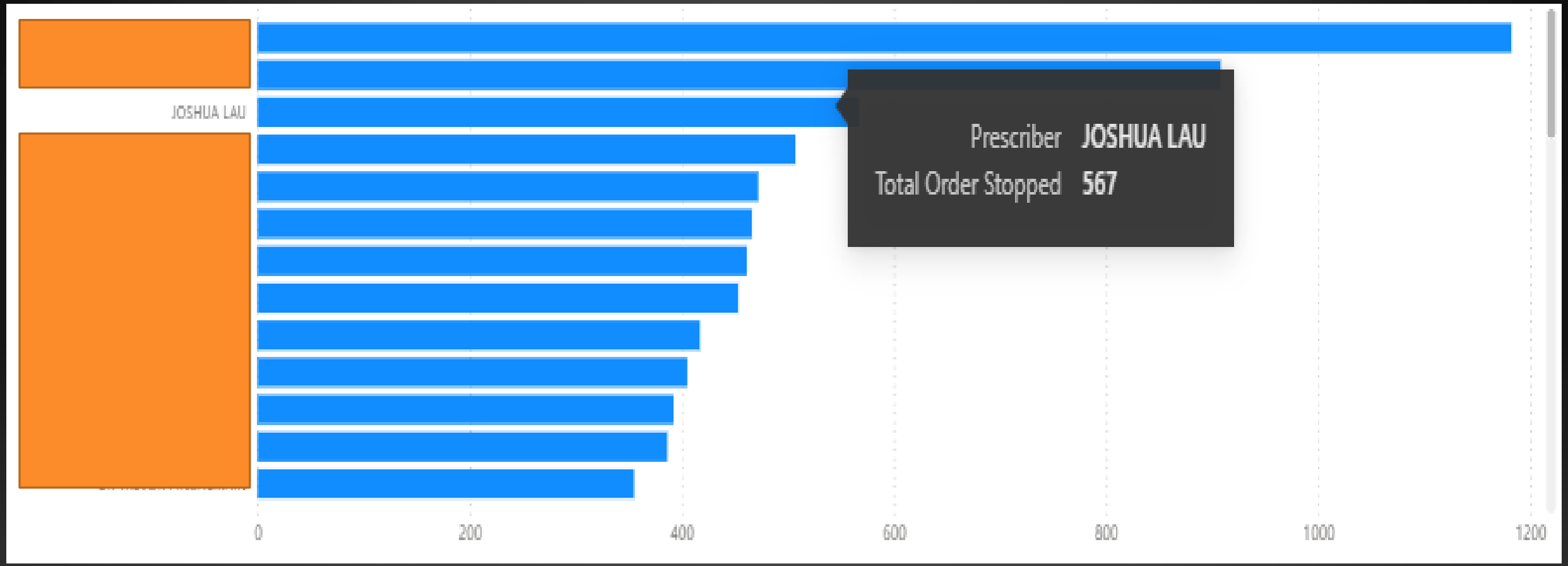
- The MDT role enabled the prescribing of 8810 medications over the last 8 months, 4,740 more than the next highest prescriber for the whole of Swansea Bay.
- As can be seen from the table below the top 10 most frequently prescribed are all linked to a reduction in hospitalisation/mortality for cardiology patients and for symptomatic benefit

Medication Prescribed	Quantity
Bisoprolol	636
Ramipril	458
Aspirin	351
Dapagliflozin	317
Atorvastatin	316
Clopidogrel	307
Glyceryl Trinitrate	282
Eplerenone	272
Enoxaparin	259
Furosemide	206

Representation of Enhanced prescribing



Stopping Medication/Deprescribing



Stopping Medication/Deprescribing Themes

Top 10 stopped medications

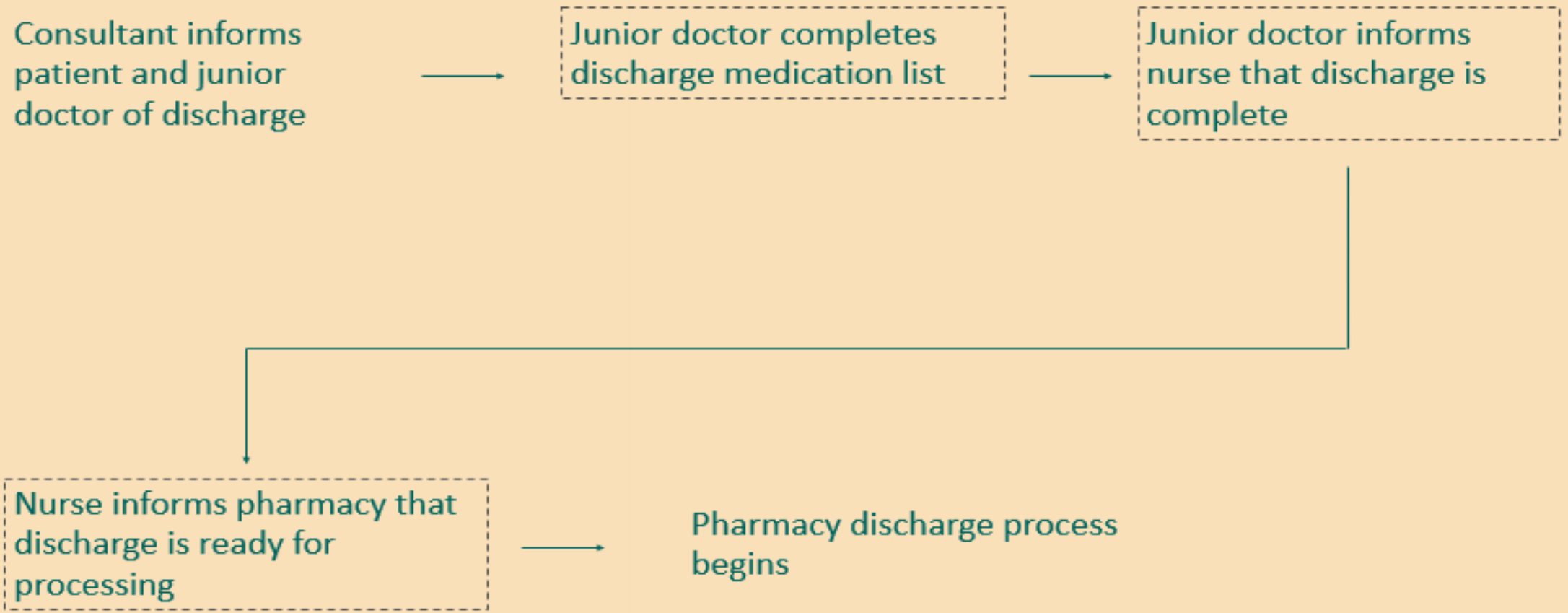
- Antibiotic prescriptions were stopped 88 times over the 8 month period
- The full stop list also contains several high risk medicines includes DOACs, LMWHs, Antiepileptics and antiarrhythmics

Drug Description	Total Order Stopped
CLOPIDOGREL 75 mg Tablets	137
ASPIRIN 75 mg Dispersible Tablets	58
PRASUGREL 10 mg Tablets	49
COLCHICINE 500 micrograms Tablets	26
TICAGRELOR 90 mg Tablets	25
PREDNISOLONE 5 mg Tablets	22
.DOXYCYCLINE 100 mg Capsules	20
AMIODARONE HYDROCHLORIDE 200 mg Tablets	20
SANDO-K Effervescent Tablets	18
.FLUCLOXACILLIN 500 mg Capsules	11

Environmental Impact

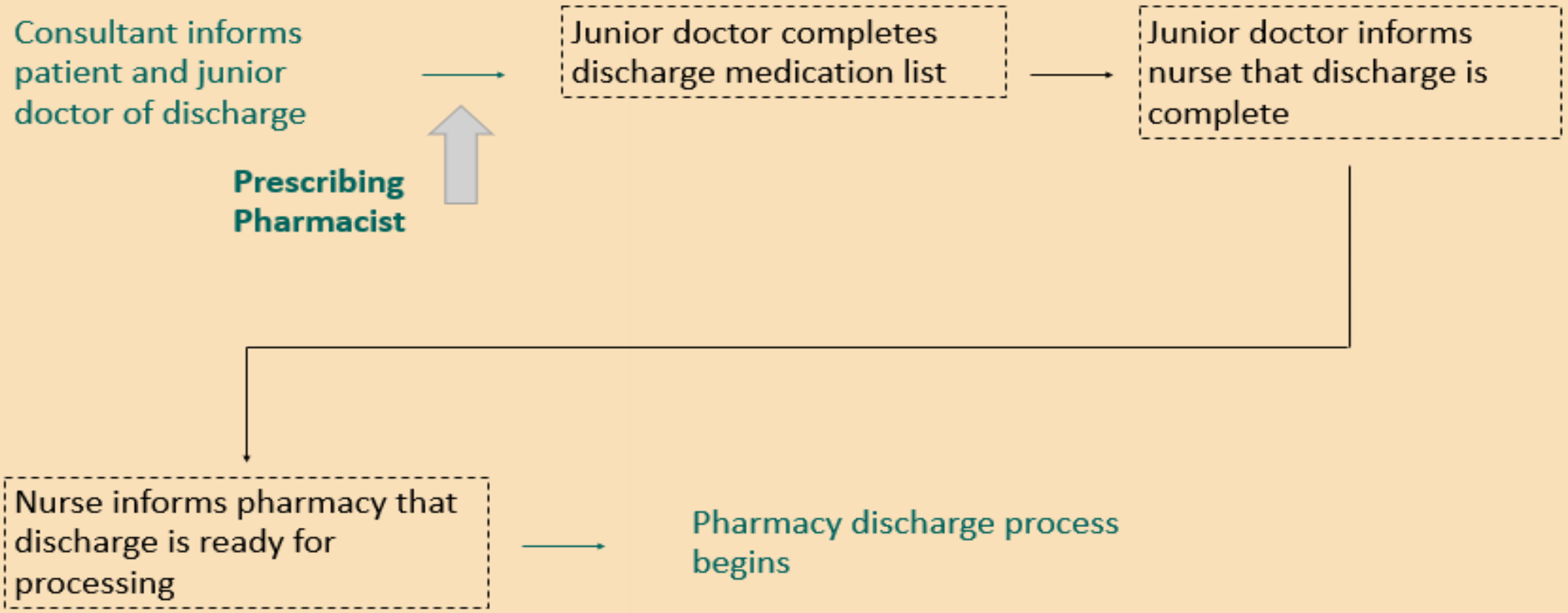
- If each medication stopped is equated to one less box of medication supplied this would equate to 284 Kg of CO_2 production avoided. Value used is 0.5kg of CO_2/box of medication. This value is conservative as antibiotics and inhalers have a higher CO_2 burden.
- This is the equivalent to:
    - 284,000 smartphone charges
    - 19,000 cups of tea boiled in a kettle
    - 2,840 washing-machine cycles (40 °C)

- If we were to expand these figures to Drug lifetime as the majority of these medicines will be continued to be stopped in community:
    - 2,050 car miles
    - 829,280 smartphone charges
    - 55,285 cups of tea boiled in a Kettle


Consultant informs patient and junior doctor of discharge
Junior doctor completes discharge medication list
Junior doctor informs nurse that discharge is complete
Nurse informs pharmacy that discharge is ready for processing
Pharmacy discharge process begins

Improved discharge efficiency

- From our data collection over a four month period we confirmed that 437 hours of delays in discharges occurred when a pharmacist was not involved in the prescribing. Scaled up for the year this would be 1311 hours
- This was due to inefficient communication between ward staff as shown in the previous slide
- The change of the prescribing pharmacist leading on discharge effectively reduced these delays to 0.
- This is due to MDT pharmacist prescribing the discharge and immediately informing the pharmacy team to start our processes.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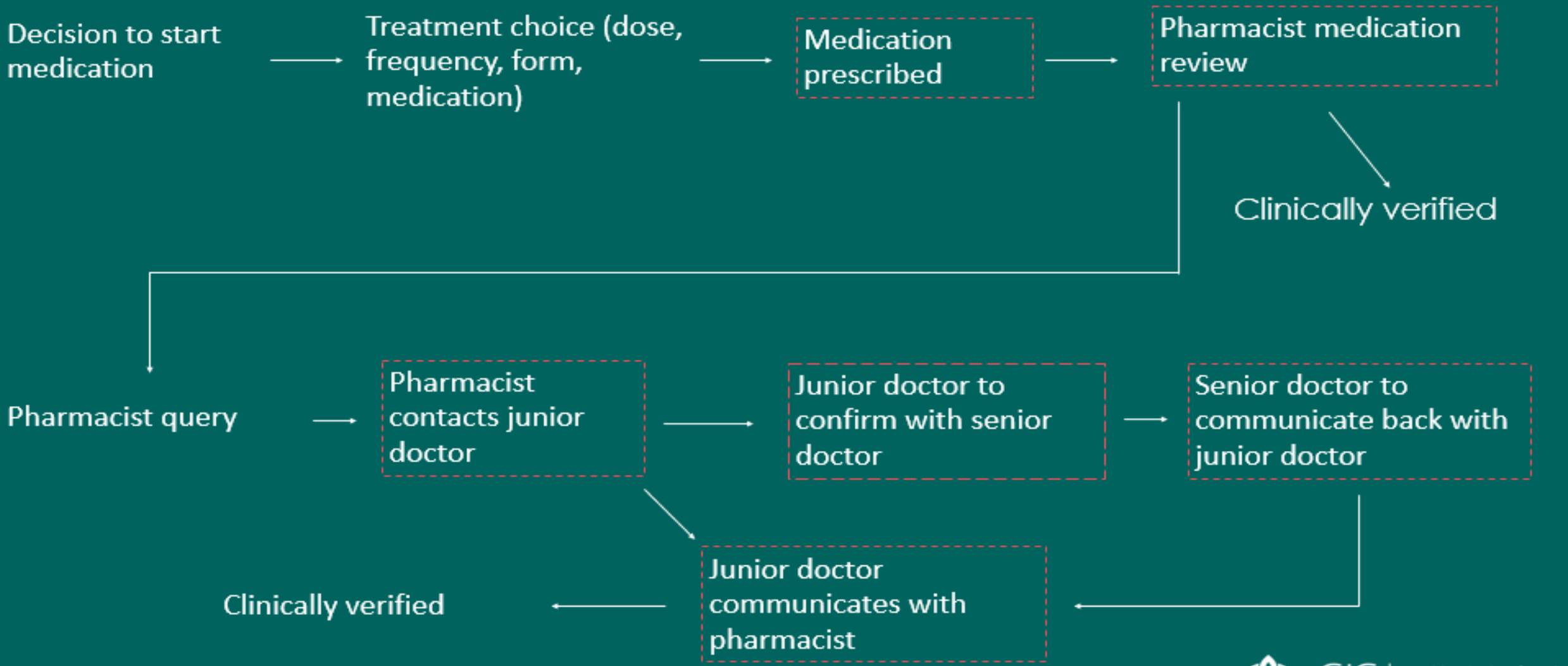

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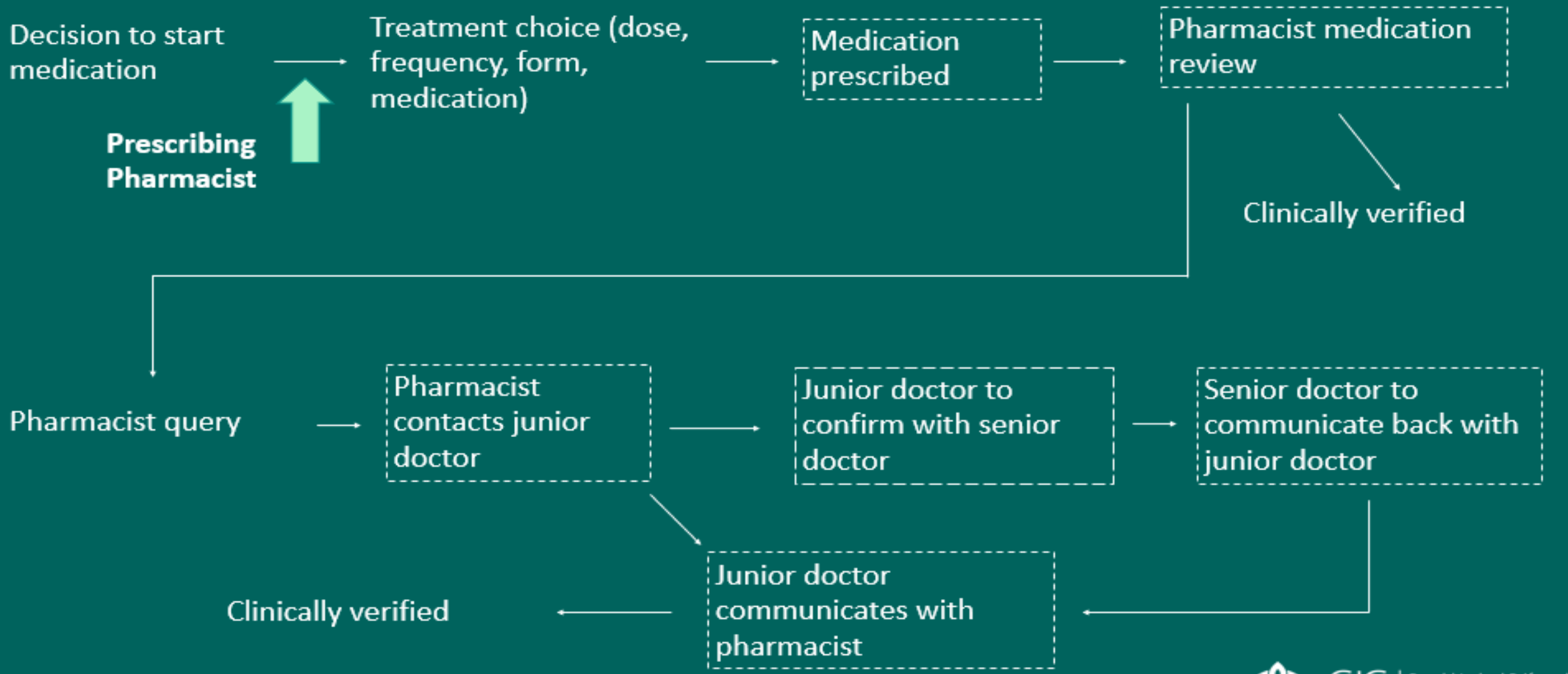
Improved medication query resolution

- As can be seen from the convoluted process of trying to address a medication query, their resolution are frequently prolonged
- This leads to patients not receiving optimum care
- We found that on average it took 7.48 hours to resolve each query
- However following the MDT pharmacist involvement this drastically reduced to 5 minutes
- This shows how efficient prescribing decisions can be made when professionals with extensive knowledge of medicines have access to the key decision makers



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Financial savings

- The pharmacist reviewed antiplatelet prescribing and implemented guideline-driven changes, particularly switching from ticagrelor to clopidogrel/prasugrel where clinically appropriate
- Based on changes made to antiplatelet prescribing, we predicted an annualised cost saving of £71,875 in primary care, with £31,742 already confirmed—not including additional savings from other drug classes.
- In addition, a further £14,467 saving was achieved in secondary care through the same antiplatelet prescribing optimisation, demonstrating the substantial cross-sector financial benefit of the intervention.
- Future cost savings include the utilisation of homecare for highly specialised expensive treatments for complex cardiac conditions and the management of the potential increase in GLP-1 use.

Consultant MDT feedback

“Having graduated from medical school in a very different time and place, I came to the UK with a strong sense of the hierarchies of power within the health care team. As a result, I was initially (when I was training as a cardiology SpR) very sceptical, even hostile to the notion that a ‘mere’ pharmacist should question or amend my decisions.”

I mention this background only to emphasize and highlight what a huge turnaround I underwent on this, and in a large measure due to Josh. His presence and knowledge makes my prescribing significantly safer and more accurate and patient specific. I was very sorry we did not have him with us throughout the cardiac centre, and I intensely support the development of a role that covers the totality of the ward round in cardiology.”

Spread, Scale and Future Roles

How innovation spreads

The success of the cardiology MDT pharmacist created *clinical pull*, with cardiothoracic, vascular and endocrinology teams adopting the model once local value was visible.

Designed for context, not replication

Roles were adapted to specialty rhythm and decision points, demonstrating that scalable innovation is about *principles and outcomes*, not uniformity.

From exemplar to business as usual

Evidence shows improved medicines optimisation and safer decision-making; the next phase is embedding the model sustainably across specialties and health boards.

Re-thinking the hospital pharmacist

A shift from transactional ward activity to specialty-aligned clinical leadership within MDTs, influencing decisions at the point of care.

Enablers of spread and scale

Early engagement, strong governance, and permission to iterate — aligning with prudent, value-based healthcare.

Measuring what matters

Success is defined by patients leaving hospital on the *right medicine, at the right dose, for the right reason* — delivering benefit for patients and the wider system, consistent with the ambitions of the Bevan Commission.

Diolch
Thank You

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