

A Regional Model of Medicines Optimisation for Older People in Intermediate Care: Refinement & Reproducibility

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Background

In 2012 the WHSCT introduced a new consultant pharmacist led medicines optimisation case management service for older people admitted into intermediate care (Waterside Hospital). Data collected for patients seen over a 12-month period demonstrated statistically significant improvement in appropriateness of drugs prescribed together with drug cost savings and cost avoidance due to subsequent reduced healthcare resource usage¹.

Aim

To refine and reproduce the intermediate care medicines optimisation model in two trusts with the aim of informing regional strategy for potential roll out of this service across Northern Ireland.

Model Refinement

The original model developed in the WHSCT has been refined and updated so as to reflect intermediate care services which may be delivered anywhere throughout the region; therefore this could be regarded as a generalised model which can be integrated into an existing trust pharmacy service delivery system.

Figure 1 shows the refined intermediate care model with case management continuing for 30 days post discharge.

The main refinement to the original WHSCT model involved the 'origin of admission'. To reflect changes in service in not only the WHSCT but throughout Northern Ireland, origins of admission to intermediate care may now include:

- Acute care
- Rapid Access Clinics
- Older People Assessment Liaison Service (OPALs)
- GP request for a step-up bed

In the original model, the consultant pharmacist patient-facing clinical time commitment was 0.5WTE. In August 2015 a 1.0WTE Band 8a Older People Case Management Pharmacist was recruited into the existing WHSCT service. The model was also introduced to the NHSCT with this service being delivered in the Dalriada and Robinson Community Hospitals by a similarly qualified pharmacist. Both services are led and mentored by the consultant pharmacists (older people).

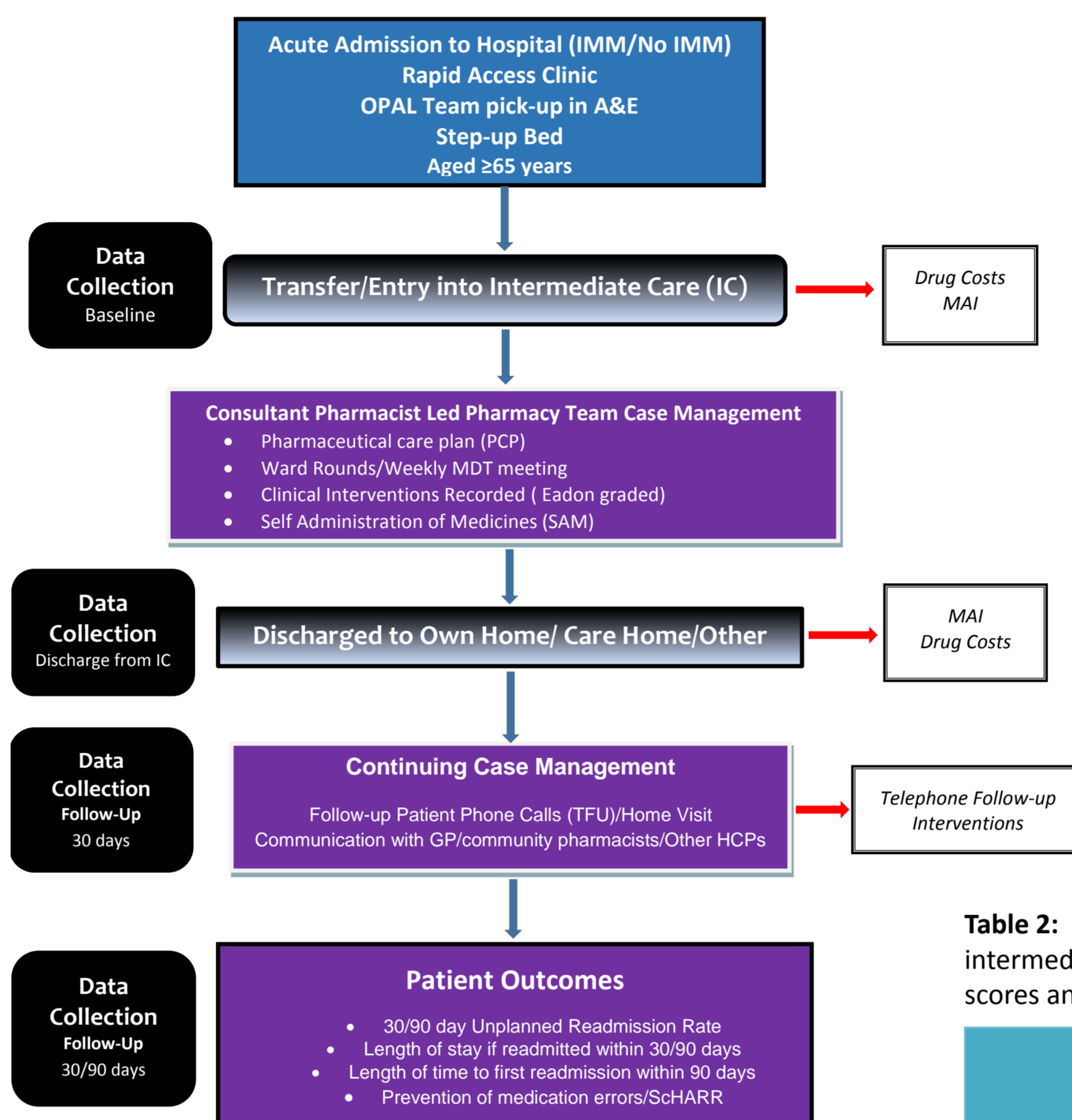


Fig 1: Consultant-Pharmacist Led Pharmacy Team Case Management of Older People in Intermediate Care

*IMM = Integrated Medicines Management

Results

Data collection is ongoing until December 2016, with interim results reported here together with comparisons to the results yielded by the original WHSCT case management medicines optimisation model of patient care.

Table 1: Details of older patients (aged ≥65 years) in receipt of the medicines optimisation intermediate care case management models for whom data were collected

	ORIGINAL INTERMEDIATE CARE MODEL		REFINED INTERMEDIATE CARE MODEL	
	WHSCT 2012-2013 (n=453)	WHSCT AUG '15 – FEB '16 (n=130)	NHSCT AUG '15 – FEB '16 (n=156)	
Age (years)	82.8±7.1	81.4±7.2	81.7±7.4	
Average Length of stay in Intermediate Care (Days)	29.5	34.0	32.1	
Origin of Admission to Intermediate Care	100% Acute Care (Altnagelvin)	96.2% Acute Care (Altnagelvin) 3.8% OPALs	49.4% Acute Care (Causeway) 15.4% Acute Care (Altnagelvin) 16.7% GP Step-up Request 7.1% Acute Care (Antrim) 2.6% Acute Care (Other WHSCT) 2.6% Acute Care (BHSC) 6.2% Other	

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References

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The WHSCT and NHSCT Medicines Optimisation in Older People teams working in intermediate care and care homes



Table 2: The number of drugs taken by patients admitted to intermediate care (IC), Medication Appropriateness Index (MAI)² total scores and potential drug cost savings *per annum*

	ORIGINAL INTERMEDIATE CARE MODEL	REFINED INTERMEDIATE CARE MODEL	
	WHSCT 2012-2013 (n=453)	WHSCT AUG '15 – FEB '16 (n=130)	NHSCT AUG '15 – FEB '16 (n=156)
No. of drugs taken on 1 st presentation to IC	10.7±4.3 (Range = 0 to 25)	10.9±4.1 (Range = 2 to 23)	10.4±4.3 (Range = 1 to 24)
MAI on admission to IC (total score)*	7.1±5.7 (n=355) (Range = 0 to 27)	13.0±10.5 (Range = 0 to 46)	16.1±12.4 (Range = 0 to 56)
MAI on discharge from IC (total score)*	2±2.6 (Range = 0 to 14)	0.1±0.6 (Range = 0 to 6)	1.5±3.4 (Range = 0 to 16)
Extrapolated drug cost savings <i>per annum</i>	£72k (n=453)	£106k Assuming 500 patients case managed pa	£107k (n=500) Assuming 500 patients case managed pa

*Statistically significant reduction from IC admission to discharge

Table 3: Clinical Interventions made during a patient stay in intermediate care (IC) and during post-discharge telephone follow-up

	ORIGINAL INTERMEDIATE CARE MODEL	REFINED INTERMEDIATE CARE MODEL	
	WHSCT 2012-2013 (n=453)	WHSCT AUG '15 to FEB '16 (n=130)	NHSCT AUG '15 to FEB '16 (n=156)
Average number of clinical interventions made per patient during IC stay	2.5	5.2 (Range = 0 to 10)	4.0 (Range = 0 to 12)
% Clinical Interventions Eadon ³ Grade ≥4	84.0	94.1	87.8
Average number of days post discharge until telephone follow-up	26.3	27	33
% Patients requiring clinical interventions during follow-up	45.9	21.1	58.4

Conclusion

Interim results indicate that the refined consultant pharmacist led medicines optimisation intermediate care case management model can be integrated into existing pharmacy services in other trusts whilst continuing to deliver positive reproducible and robust clinical and economic outcomes. Data will be collected until December 2016 with final results reported early in 2017.