

Table 1: References and key information measures used

Year	Author and year	Article or abstract	Medication type	Intervention to improve safety	Care Transition	Electronic Health System Use	Measures used
2011	Avanzini et al.[1]	Article	Insulin	Standardised protocol	Intensive cardiac care unit to general ward	Not described	Percentage of blood glucose: <ul style="list-style-type: none"> <li>• Within a narrow range on the first, second and third days after ToC</li> <li>• Within a wider range after meals on the first, second and third days after ToC</li> </ul> Percentage of hypoglycaemia episodes on the first, second and third days after ToC Deaths Rates of main non-lethal cardiovascular complications
2011	Nordenholz et al.[2]	Abstract	Anticoagulant	Clinical care pathway	Emergency department to primary care	A standardized electronic order set	Laboratory ordering practices Readmission to an emergency department (ED) Readmission with deep vein thrombosis (DVT)
2011	Reger et al.[3]	Article	Anticoagulant	Discharge pathway	Hospital to primary care	Patients identified by scanning computer-based reports. Data collection.	Percentage patients with pharmacist coordination documented Pharmacist time spent per patient Recurrent venous thromboembolism (VTE) Major bleeding
2011	Schillig et al.[4]	Article	Anticoagulant	Pharmacist involvement	Hospital to primary care	Not described	Enrolment in anticoagulation clinic Documented inpatient-to-outpatient provider contact Documented inpatient provider-to-anticoagulation clinic communication Patient follow-up with the anticoagulation clinic within five days of discharge Composite of any INR <sup>1</sup> over 5, any episode of major bleeding or development of new

<sup>1</sup> INR stands for international normalised ratio, a blood test used to determine response to vitamin K antagonists (for example warfarin).

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							thromboembolic events within 30 days of hospital discharge
2011	Stafford et al.[5]	Article	Anticoagulant	Pharmacist involvement	Hospital to primary care	Not described	<p>Major bleeding events within 90 days of discharge</p> <p>Thromboembolic events</p> <p>Rates of death</p> <p>Other adverse events (including minor bleeding)</p> <p>Unplanned hospital readmissions</p> <p>INR:</p> <ul style="list-style-type: none"> <li>• Control at eight days post-discharge and to day 90</li> <li>• Rates of INR over 4</li> <li>• Rates of INR within, below or above the therapeutic range</li> </ul> <p>Rates of persistence with warfarin therapy</p>
2012	Falana et al.[6]	Abstract	Anticoagulant	Pharmacist involvement	Hospital to outpatient clinic	Not described	<p>Major or minor bleeding</p> <p>Thromboembolic events</p> <p>INR greater than 5</p> <p>Anticoagulation-related readmissions:</p> <ul style="list-style-type: none"> <li>• Emergency department (ED) visit</li> <li>• Readmission within 30 days of discharge</li> </ul> <p>Successful ToC to the next care provider at discharge.</p>
2013	Martin III et al.[7]	Article	High-risk medications	Pharmacist involvement	Hospital to primary care	Pharmacy computer system produced a report identifying patients taking HRMs.	<p>Percentage of discharge orders requiring resolution of:</p> <ul style="list-style-type: none"> <li>• Medication safety recommendations</li> <li>• Inadequate warfarin follow-up arrangements</li> </ul>

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							<ul style="list-style-type: none"> <li>Unintentional medication changes</li> </ul> Rate of physician acceptance of the team's clinical recommendations
2014	Falconieri et al.[8]	Article	Anticoagulant	TOC programme	Emergency Department to primary care	Not described	Follow up: <ul style="list-style-type: none"> <li>Percentage of patients who attended a follow-up appointment by 30 days</li> <li>Time to follow-up appointment post-discharge</li> </ul> Self-reported anticoagulation adherence Readmission rates Patient satisfaction
2014	Martins et al.[9]	Abstract	Anticoagulant	Outpatient clinic	Outpatient clinic to primary care	Not described	Time in therapeutic range Thromboembolic events Number of bleeding events
2015	Padron et al. [10]	Article	Anticoagulant	Anticoagulation stewardship program	Hospital to outpatient	Not described	Clinics: <ul style="list-style-type: none"> <li>Number of patients seen in clinic</li> <li>Percentage of patients with therapeutic, subtherapeutic or supratherapeutic INR at clinic appointment</li> <li>Appointment attendance</li> </ul> Adverse events: <ul style="list-style-type: none"> <li>Bleeding</li> <li>Thromboembolic events</li> </ul> Readmissions to hospital or ED
2015	Dunn et al.[11]	Article	Anticoagulant	Information pack	Hospital to outpatient clinic	Retrospective administrative database review. Electronic health record use not	Change in the frequency of obtaining an INR value within 10 days of discharge Percentage patients attaining a therapeutic INR level within 10 days of discharge

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						described.	Clinician satisfaction
2015	Quach et al.[12]	Abstract	High-risk medications	Medication reconciliation	Primacy care to the Emergency Department	Not described	Potential for errors discovered to cause patient harm or discomfort
2015	Yilmaz et al.[13]	Abstract	High-risk medications	Medications reconciliation and discharge counselling	Hospital to primary care	Not described	Adherence Rate of medication reconciliation discrepancies Readmission rates Patient satisfaction
2016	Ha et al.[14]	Article	Anticoagulant	Standardised protocol	Hospital to primary care	Patient with medication interactions were identified retrospectively using electronic health record. Standardised data extraction form developed.	Time in therapeutic range Rates of the following during the time of interaction or within 30 days of antimicrobial discontinuation: <ul style="list-style-type: none"> <li>• Thromboembolic events</li> <li>• Major bleeding events</li> </ul> Documentation rates of significant antimicrobial-warfarin interactions
2017	Bryant et al.[15]	Abstract	Anticoagulant	Pharmacist involvement	Emergency department to primary care	Not described	Percentage of patients who received appropriate anticoagulation at time of discharge Number of patients with a pharmacist intervention Rates of patient education provided prior to discharge Time to outpatient follow-up

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2017	Castelli et al.[16]	Article	Anticoagulant	Information pack for patients	Hospital to primary care	A daily report generated to identify patients diagnosed with VTE prescribed rivaroxaban.	<p>Percentage of patients who:</p> <ul style="list-style-type: none"> <li>• Transitioned to rivaroxaban 20 mg daily on day 22</li> <li>• Had greater than 90% adherence</li> <li>• Stopped rivaroxaban for any reason</li> </ul> <p>Adherence Patient understanding of correct dose and timing of medication Overall satisfaction (patient) Rates of:</p> <ul style="list-style-type: none"> <li>• Minor bleeds</li> <li>• Events that required contacting physician or visiting an emergency department</li> <li>• Recurrent VTE</li> <li>• Death</li> </ul>
2017	Chamoun et al.[17]	Article	Anticoagulant	Standardised protocol	Hospital to primary care	A report was generated from a patient database, and data collected from electronic healthcare records.	<p>Bleeding:</p> <ul style="list-style-type: none"> <li>• Rates of bleeding events</li> <li>• INR on day bleeding occurred</li> <li>• Severity of bleeding event</li> <li>• Total number</li> </ul> <p>INR:</p> <ul style="list-style-type: none"> <li>• Composite of changes by 0.5 or more per day or INR greater than 4 during inpatient stay and follow up</li> </ul> <p>Percentage of patients achieving a therapeutic stable INR by day 7 and by day 14</p>
2017	Wei et al.[18]	Article	Insulin	Remote glucose monitoring	Hospital to primary care	Remote monitoring of glycaemic control using a web-based communication portal.	<p>Mean blood glucose level Exploratory outcomes of hypoglycaemia/hyperglycaemia Insulin titration frequency</p>

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2017	Zdyb et al.[19]	Article	Anticoagulant	Counselling and education	Emergency department to primary care	Electronic health record used to identify patients requiring interventions. Standardised electronic form for documentation.	Appropriateness of medication dosing Rates of prescription collection If patient had contacted or seen their primary care provider Documented readmission or representation to a hospital within 90 days potentially related to anticoagulation
2018	Herges et al.[20]	Article	High-risk medications	Pharmacist involvement	Hospital to primary care	Electronic health record used to calculate risk of patient death or unplanned readmission. Used to calculate percentage of drug therapy problems and medication discrepancies metrics.	Readmission risk at 30, 60 and 180 days Number of drug therapy problem recommendations for all medications and HRMs Percentage of recommendations that were acted on by the clinician within 7 days Number of medication discrepancies for all medications and for HRMs
2019	Dempsey et al.[21]	Abstract	High-risk medications	Pharmacist involvement	Hospital to primary care	Not described	Average number of medication discrepancies per patient Number of medication access issues resolved 30-day medication related hospital readmissions
2019	Pyrllis et al.[22]	Article	Insulin	Transition diabetes team	Hospital to primary care	Not described	Hospital readmissions and emergency department presentations Patient satisfaction Change in HbA1c
2020	Kapoor et al.[23]	Article	Anticoagulant	Pharmacist involvement	Hospital to primary care	Nurse reviewed medication list and provided an up-to-date colour version with instructions to the patient by mail.	Quality of care transition using Coleman et al.'s Care Transition Measure (CTM) Patient knowledge regarding anticoagulation, interactions, risks, signs, and symptoms to report to prescriber Anticoagulant beliefs

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2020	Liang et al.[24]	Article	Anticoagulant	Pharmacist involvement	Hospital to primary care	Not described	Proportions of time within the target INR range during follow-up period Proportions of time within the expanded target range during follow-up period Time spent outside the critical INR range ( $\leq 1.5$ or $\geq 5.0$ ) Adverse events: <ul style="list-style-type: none"> <li>• Bleeding</li> <li>• Recurrent thrombosis</li> <li>• Death</li> </ul> Readmission Warfarin-related knowledge level
2020	Lim et al[25]	Article	Anticoagulant	Outpatient clinic	Emergency department to outpatient clinic	Guidance to clinicians via an electronic clinical decision support tool.	Readmissions Thromboembolic events Bleeding events
2020	Tyedin et al.[26]	Article	Anticoagulant	Pharmacist involvement	Hospital to primary care	Electronic health record used by pharmacists to chart and monitor warfarin. Electronic health records used for data collection.	Proportion of patients: <ul style="list-style-type: none"> <li>• With an INR greater than 5.0</li> <li>• Readmitted relating to anticoagulation</li> <li>• With a complete warfarin dose plan at discharge</li> <li>• With warfarin related errors during admission</li> </ul>
2021	Andre et al.[27]	Abstract	Anticoagulant	Medication Reconciliation	Primary care to hospital	Not described	Frequency and type of reconciliation discrepancies at admission and discharge Patient knowledge Medication discrepancies rated for severity

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2021	Bakey et al.[28]	Article	Anticoagulant	Pharmacist involvement	Emergency department to primary care	EHS used to identify eligible patients and document pharmacist recommendations.	<p>Rates of issues relating to care components:</p> <ul style="list-style-type: none"> <li>• Anticoagulation medication errors at discharge</li> <li>• Patient counselling on anticoagulation</li> <li>• Anticoagulation prescription at discharge</li> </ul> <p>Adverse events:</p> <ul style="list-style-type: none"> <li>• ED or hospital admission for bleeding within 30 days</li> <li>• ED or hospital admission for VTE within 30 days</li> </ul>
2021	Bawazeer et al.[29]	Abstract	High-risk medications	Medication Reconciliation, counselling and follow up	Hospital to primary care	EHS used to identify patients on insulin and/or warfarin and for data collection	<p>Adverse events:</p> <ul style="list-style-type: none"> <li>• Readmission rate within 30 days of discharge</li> <li>• Time to first unplanned health care utilization</li> </ul> <p>Time to the first outpatient clinic visit Disease-specific parameters (glycosylated haemoglobin (HbA1C) and INR Number of medication-related problems identified during the reconciliation stage Patient satisfaction with the service</p>
2021	DeSancho et al.[30]	Journal	Anticoagulant	Counselling and education	Hospital to primary care	Not described	<p>Scheduled follow up appointment Re-admission rates Adverse events:</p> <ul style="list-style-type: none"> <li>• Recurrent thrombosis</li> <li>• Bleeding events</li> </ul> <p>Adherence Anticoagulant recall errors:</p> <ul style="list-style-type: none"> <li>• Dose</li> <li>• Dose frequency</li> </ul>



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2021	Gurwitz et al.[31]	Article	High-risk medications	Pharmacist involvement	Hospital to primary care	Communication with primary care team through the EHS relating to medication safety. Data collection.	Number of adverse drug-related incidents Clinically important medication errors
2021	Kane-Gill et al.[32]	Article	High-risk medications	Pharmacist involvement	Primary care to nursing home	Electronic clinical surveillance system highlighting medication risks.	Patient care recommendations evaluated by degree of harm prevented
2021	Magny-Normilus et al.[33]	Article	Insulin	Discharge intervention	Hospital to primary care	Patients identified by scanning EHS reports. Data collected using hospital's clinical data repository.	Adherence Monitoring: <ul style="list-style-type: none"> <li>Glycaemic control - change in A1c 60 to 120 days after discharge compared with the A1c in the 90 days before or at the time of index hospitalization</li> <li>Proportion of monitored patient-days with severe hypoglycaemia (less than 40 mg/dL) within 30 days of discharge</li> </ul> Readmissions
2021	Zabrosky et al.[34]	Abstract	High-risk medications	Standardised protocols for ToC	Hospital to primary care	Not described	Rate of referral to outpatient follow-up Readmissions Successful TOC protocol completion where evaluation/performed and documentation of following documented: <ul style="list-style-type: none"> <li>Baseline laboratory values</li> <li>Therapeutic drug monitoring</li> <li>Intravenous access</li> <li>Drug-drug interactions</li> <li>Medication availability</li> <li>Patient counselling on medications</li> <li>Pharmacist documentation in discharge</li> </ul>

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							letter Pharmacist time Rate of inappropriate protocol initiation
2022	Lázaro Cebas et al.[35]	Article	High-risk medications	Pharmacist involvement	Hospital to primary care	Not described	Readmissions Cost of intervention

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