The Regulation and Quality Improvement Authority

Regional Re-audit of Medicines Reconciliation on the Immediate Discharge Document

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Assurance, Challenge and Improvement in Health and Social Care

Regional Re-audit of Medicines Reconciliation on the Immediate Discharge Document

Executive Summary

Medication Reconciliation is the formal process in which health care professionals partner with patients to ensure accurate and complete medication information transfer at interfaces of care.[1]

A regional audit of medicines reconciliation on the Immediate Discharge Document (IDD) was first published by Guidelines and Audit Implementation Network (GAIN)[2] in 2017. The report concluded that significant improvement was required regarding the communication around medication changes when patients transfer between settings in Northern Ireland.

The main aim of this re-audit is to evaluate the current processes in place for accurate medicines reconciliation on the IDD in Northern Ireland and to determine if improvement has been achieved compared to the 2016 audit results (published 2017)

Whilst improvement has been noted in most of the criteria re-audited, variation observed between the individual Health and Social Care (HSC) Trusts in some of the quality standards points to this improvement being the result of local efforts by individual hospital Trusts rather than a cohesive regional approach to system-wide change for improvement. There is an immediate need to further explore the specific practices in place at a local level which have resulted in better adherence with the quality standards and to share this good practice regionally.

Of concern is the noted drop in compliance with the quality standards around anticoagulant therapy which requires further targeted action to improve the communication between settings regarding this high-risk group of medicines.

The recommendations for improvement in the original report may not have contributed sufficiently to move towards improved medication safety at transitions of care, and there is an opportunity to use this report of our re-audit to shape future regional policy.

The World Health Organization (WHO) launched their third Global Patient Safety Challenge (Medication Without Harm[3]) in 2017, and recognized:

'The complex challenge of improving medication safety during transitions of care requires long-term commitment from healthcare leaders and cohesive efforts from health care professionals to substantially reduce potential patient harm'

WHO recommends each country needs to '*put in place locally relevant improvement programmes'* in order that progress towards defined goals can be measured as part of a strategic plan, which includes short and long-term objectives and which is supported by long-term leadership commitment.

The challenge for Northern Ireland remains how best to strengthen our health system to meet the requirements laid down by the World Health Organization to reduce preventable harm due to medication discrepancies at transitions of care.

Key findings

No.	Standard	% Compliance* Year of data collection	
1	**Receipt of IDD by GP**	2016	**2019**
1a.	IDD should be received by GP within 24 hours of discharge	23.1	**29.4**
1b.	IDD should be received by GP no later than three days after discharge	47.6	**58.0**
2	**Documentation of Allergy Status**		
2a.	All patients must have allergy status documented on the IDD	84.2	**87.9**
2b.	Where an allergy is recorded the sensitising agent should be noted	80.6	**82.0**
2c.	Where an allergy is recorded the nature of the reaction should be noted	19.0	**23.4**
3	**Medicines Reconciliation**		
	Where a change in a medication has occurred (new, changed or stopped) this should be noted on the IDD:		
a.	• New medicines	69.3	**81.6**
b.	• Changed medicines	72.1	**83.5**
c.	• Stopped medicines	74.5	**84.3**
	Where a change in a medication has occurred the rationale for the change should be noted:		
d.	• New medicines	34.5	**39.8**
e.	• Changed medicines	36.2	**51.0**
f.	• Stopped medicines	55.2	**67.5**
4	**Communication Regarding Anticoagulation**		
	Where an anticoagulant has been prescribed the following should be noted:		
a.	• Reason for anticoagulation	61.3	**60.3**
b.	• Duration of anticoagulation	53.8	**47.9**
c.	• Counselling on anticoagulation	22.6	**18.3**
d.	• Standardized template used for communication (all anticoagulants)	28.4	**14.5**

***NB: This audit's steering committee recognise that 100% of immediate discharge document (IDD) should contain accurate and complete information regarding a patient's medicines. However, in this audit a realistic and achievable target of 90% has been set for the quality standard.**

Recommendations

On consideration of the findings of this regional audit on IDDs the following recommendations are made:

1. The initiation of a regional strategic plan to improve medication safety during transitions of care within Northern Ireland, to meet the requirements of the WHO Patient Safety Challenge. This should include specific and measurable goals to monitor improvement over time and involve relevant stakeholders including service-users.

2. Implementation of Electronic Document Transfer as standard for the IDD, from secondary to primary care across all HSC Trusts, to ensure accurate and timely transfer of information.

3. Collaboration between HSC, Trusts and all bodies representing General Practice in Northern Ireland (including the General Practice Committee of the British Medical Association, General Practice Federations and the head of General Medical Services in the Health and Social Care Board) to understand the reason for local variations and to share best practice, with a view to developing an agreed electronic template for the immediate discharge document which is adopted by all HSC Trusts. This would reflect the Regional Guidelines from GAIN in 2011 and more recent guidance from the Professional Records Standards Body[18] and should include:

    - Mandatory recording of allergy status, with the sensitising agent and nature of reaction noted
    - Fields to ensure that the status of medicines (continued, changed or stopped) is recorded, along with the rationale for any such changes

4. Agreement on a standardised format for communication about anticoagulation to support safe prescribing of warfarin alongside the evolving use of Direct Oral Anti-Coagulants (DOACs). This should include details of the indication, duration of treatment, counselling of the patient and other clinically relevant information where appropriate e.g. renal function. Ideally this would form part of the electronic template for the IDD.

5. Engagement with the data collectors should be maintained, to seek formal feedback on how their participation contributed to learning and their subsequent generation of IDDs as Foundation Year 1 (F1) doctors.

6. Collaboration between Trusts and GP Federations using a Quality Improvement (QI) approach to develop processes to raise and resolve queries in an effective and timely manner. It would be anticipated that adoption of electronic prescribing systems in Trusts should have a positive impact on communication about medication, and it would be important to observe whether this translates into improvements in patient care.

Audit report

Background

Medication Reconciliation is the formal process by which health care professionals partner with patients to ensure accurate and complete transfer of medication information at interfaces of care[1].
Good communication regarding a patient's prescribed medication is vital to prevent unintended discrepancies and decrease the potential for patient harm. In its simplest form medicines reconciliation consists of:

Collecting information from a patient and their carers and verifying this with at least one other source of information to create a correct list of the patient's medication - also described as the best possible medication history (BPMH)[1]

Checking this list with the current prescription and identifying any discrepancies and resolving those appropriately

Communicating an accurate list of medicines along with the reasons for any noted changes to prescribed therapy

In Northern Ireland there is no single agreed template in use across the five HSC Trusts for the immediate discharge document. In 2011 GAIN published guidelines[4] on the recommended content of the IDD, but the content and format have remained individual to the specific Trusts.

The process of medicines reconciliation was acknowledged by National Institute for Health and Care Excellence (NICE) in 2016 as a significant contribution to the safe and effective use of medicines[5]. The Northern Ireland Medicines Optimization Quality Framework[6] listed 'Safer Transitions of Care' as one of the key quality standards for medicines optimization, and called for 'one single source of truth' regarding a patient's medication which should be kept up to date and shared by all health professionals. It also noted electronic communication between hospitals and GPs should be improved.

A report published by the Northern Ireland Medicines Governance Team thematically reviewed all medication incidents reported by the five HSC Trusts in 2017[7]. Suboptimal medicines reconciliation on admission and discharge was found to have resulted in several reported incidents including some involving a critical medicine such as an anticoagulant or insulin.

The previous GAIN audit of medicines reconciliation on the immediate discharge document in Northern Ireland[2] was published by in 2017 and concluded that there was room for significant improvement across all the criteria audited. Areas for immediate attention included:

- the time from discharge to receipt of the IDD by the General Practitioner (GP)
- the noting of medicines started, changed or stopped and the rationale for such changes
- an improvement of detail around allergy status
- adherence to best practice in respect of the high-risk area of anticoagulation.

Recognizing the scale of harm with unsafe medication practices and medication errors, in 2017 WHO prioritised medication safety at transitions of care as one of three areas for strong commitment as part of its third Global Patient Safety Challenge: Medication Without

Harm[3]. WHO highlighted that improving medication safety during transitions of care is challenging and complex and called on healthcare leaders to demonstrate long-term commitment to substantially reduce potential patient harm.

Aim

To re-audit the accuracy of medicines reconciliation on the IDD issued by HSC Trusts in Northern Ireland

Objectives

- To determine the extent to which IDDs in 2019 meet medication standards set out in the 2011 GAIN document Guidelines on Regional Immediate Discharge Documentation for Patients Being Discharged from Secondary into Primary Care[4]

- To compare the audit findings from the 2016 and 2019 audits, and to identify further areas for improvement in the generation of IDDs

- To provide an opportunity for final year medical students on a GP Assistantship Programme to focus on and learn about best practice in respect of IDD generation

Standards were derived from:

- Guidelines on Regional Immediate Discharge Documentation for Patients Being Discharged from Secondary into Primary Care. GAIN 2011[4]

- Northern Ireland Medicines Optimisation Quality Framework. Department of Health Social Services and Public Safety March 2016[6]

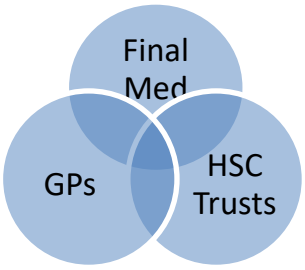
- Actions that can make anticoagulant therapy safer: Alert and other information. National Patient Safety Agency 2007[8]

Audit Methodology

A Collaborative Approach

Preparation for the discharge of patients from hospital is a complex task involving the collaborative efforts of doctors, nurses, pharmacists and others, alongside patients and their carers. It is the Foundation Year 1 Doctors (F1s) who are currently most involved in the preparation of IDDs. GPs and Pharmacists (Practice-Based and Community Pharmacists) rely on timely and accurate IDDs to ensure safe on-going care. The audit thus sought to directly involve key stakeholders:

1. Final Year Medical Students (Final Med)
2. Health and Social Care (HSC) Trusts
3. General Practitioners (GPs) and General Practice Pharmacists



1. Final year medical students

Student 'assistantships' were introduced in the 2009 revision of Tomorrow's Doctors[9] to improve the 'preparedness' of medical undergraduates for their role as junior (Foundation Programme) doctors. Since 2016 medical students at Queen's University Belfast (QUB) have spent one week of this assistantship in General Practice. One of the educational activities during these GP assistantship placements has been to participate in an audit looking at the quality of IDDs. This activity is intended to enable students to understand how their role as future authors of IDDs can impact on patient safety and has always been ranked highly in module feedback.

2. Health and Social Care Trusts – Generation of the IDD

In 2014, Regulation and Quality Improvement Authority (RQIA) highlighted that audits by HSC Trusts examining the quality of their IDDs were largely lacking, and recommended that a more robust junior doctor induction process was required in relation to the preparation of IDDs[10]. Efforts within HSC Trusts have continued to focus on improving the quality of medicines reconciliation at both admission and discharge. The introduction of the Northern Ireland Electronic Care Record (NIECR) with the ability to access lists of medicines issued by the patient's GP has been a major contributing factor to improving standards.

3. General Practice – Receipt of the IDD and continuation of care

Essential information about a patient's stay in hospital allows the GP to continue the

patient's care safely following discharge. A survey of GPs by RQIA highlighted that the medication record was where most problems arose in the IDD[10]. More specifically, changes in medication are often not accurately reflected in the IDD. This audit also presented the opportunity for Primary Care to engage and collaborate with colleagues in other settings with the aim of improving the quality of information transferred across interfaces of care.

Training and recruitment of the medical students and GP Tutors

QUB final year students attended a 'Preparation for Practice' orientation week in advance of the nine-week Assistantship. This included sessions covering the writing of IDDs and training for the IDD Audit.

GP tutors were given training for their role as a tutor at which they were informed of the audit and their role within the audit. The same information provided to the students (above) was provided for tutors.

Allocation of Students

Students were allocated to attachments in each of the five Trusts and were placed, as far as possible, with GPs who were within the Trust area that they were completing their Assistantship.

Audit sample

- Five IDDs from recently discharged patients were selected at random from IDDs received by the attachment GP Practice for each Final Year Medical Student during their week-long Assistantship placement in General Practice during April and May 2019 for a prospective audit.

Exclusions

- Outpatients' letters and communication regarding Emergency Department attendances not resulting in admission to hospital were excluded.

Data Collection Method*

- IDDs were identified at random by the GP Tutor for patients recently discharged from hospital (preferably within the week the student was on the GP attachment).
- A list of pre-admission medication was accessed from practice records and printed out.
- Medication records before admission and after discharge were compared.
- The students followed the audit briefing guide and recorded the findings on the audit proforma provided.
- Audit data was transcribed to an electronic survey using SurveyMonkey[11], the link for which had been sent at the start of the GP Assistantship week. Students who had not completed the audit by the end of the week were sent a gentle email reminder.

*These were the same data collection methods that were used in the original audit in 2016. They

have not been repeated here but are available in the original report as Appendices 3-5.

Data analysis

On completion of the audit the data was downloaded from SurveyMonkey[11] into Excel files and presented to the medical statistician for data cleansing and preparation for analysis. A single Excel sheet was imported to the Statistical package Social Science (SPSS)[12] version 22 for further recoding and analysis. Fields identified as text were changed to numeric codes and labels added.

As far as possible, inconsistencies in the data were corrected. Statistical analysis involved descriptive statistics and cross-tabulations of data with calculation of appropriate and meaningful percentage figures. Descriptive statistics were based generally on medians and inter-quartile ranges rather than means and standard deviations. To add clarity to these summary statistics interpolated medians (in SPSS this is provided as medians for grouped data) were used. A number of other variables were created as required. Where no anticoagulant was identified in the audit, completion of information about anticoagulation was assumed to be void.

Audit Findings

The figures for the original audit are provided for comparison where appropriate. Data collections occurred in Spring 2016 and Spring 2019

Table 1: Inter-audit findings summary findings

	2016	**2019**
Total number of IDDs audited	1240	**1253**
Number of Final Year Medical Students involved in data collection	256	**256**
Average number of IDDs per student	4.8	**4.8**
Total of number GP Practices participating in the audit	75	**78**

Number of IDDs Audited (by HSC Trust)

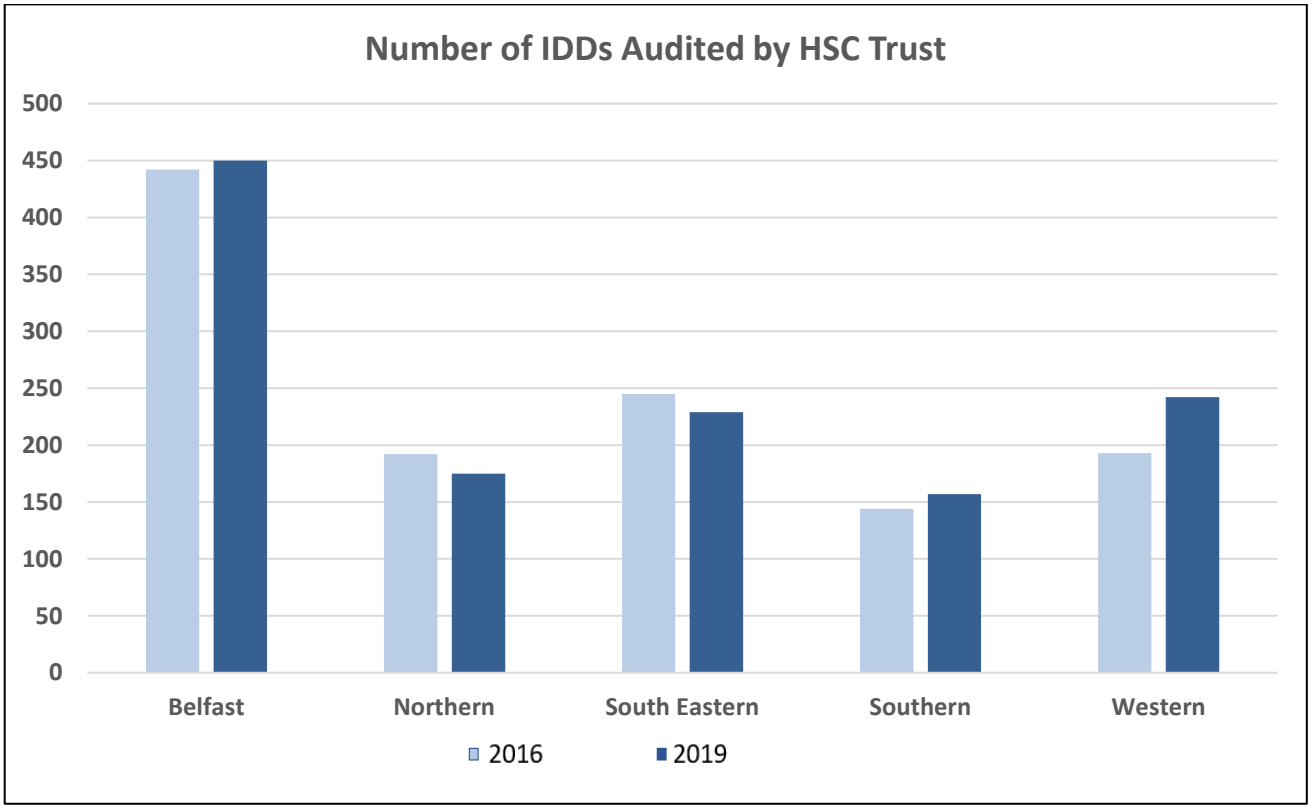
A total of 1253 IDDs were audited across all HSC Trusts.

Table 2: IDDs audited broken down by Trust

	2016	**2019**	
HSC Trust	Number of IDDs Audited	**Number of IDDs Audited**	**%**
Belfast	442	**450**	**35.9**
Northern	192	**175**	**14.0**
South- Eastern	245	**229**	**18.3**
Southern	144	**157**	**12.5**
Western	193	**242**	**19.3**
Total	1216*	**1253**	**100**

***24 IDDs unidentifiable by Trust**

Figure 1: Number of IDDs Audited by HSC Trust



***24 IDDs not identified by Trust in 2016 audit**

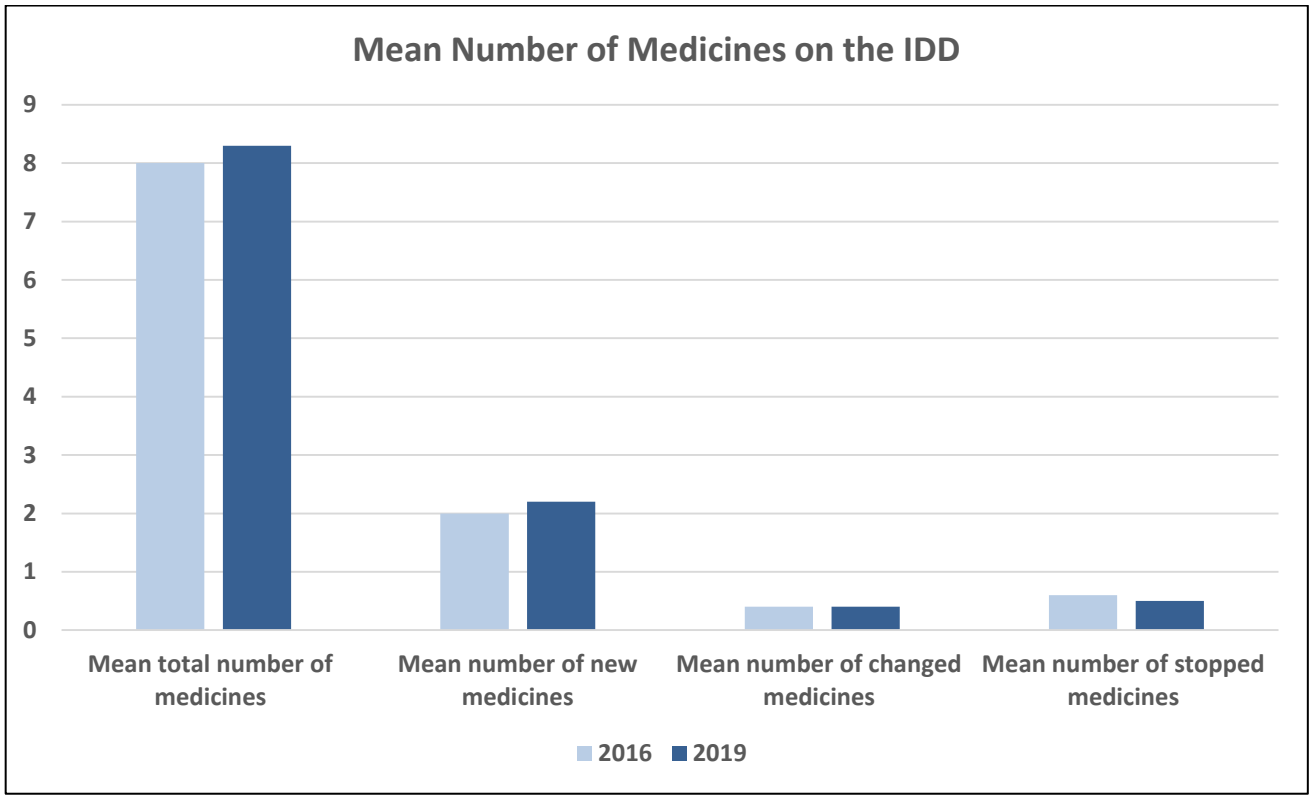
Medicines Data

A total of 10348 medicines were audited across all HSC Trusts.

Table 3: Mean numbers of medicines listed, new, changed or stopped per IDD

	2016	**2019**
Total number of medicines audited	9892	**10348**
Mean number of medicines listed per IDD	8.0	**8.3**
Mean number of new medicines per IDD	2.0	**2.2**
Mean number of changed medicines per IDD	0.4	**0.4**
Mean number of stopped medicines per IDD	0.6	**0.5**

Figure 2: Mean number of medicines on the IDD



Quality Standards

1. Length of time between discharge and receipt of IDD by GP Standard 1: Target 90%

IDD should be received by GP within 24 hours of discharge

Exceptions

None

Table 4: Mean numbers of medicines listed, new, changed or stopped per IDD

Criteria	2016	**2019**	
	Percentage	**Percentage**	**Trust range (%)**
Percentage of all letters audited that were received within one day of discharge	23.1% (284/1228)	**29.4% (368/1253)**	**23.6 – 46.3**
Percentage of all letters audited that was received within three days of discharge by GP	47.6% (584/1228)	**58.0% (727/1253)**	**50.7 – 73.7**
Percentage of all letters audited that took longer than seven days from discharge to reach the GP	21.2% (260/1228)	**16.4% (205/1253)**	**7.0 – 22.7**

Figure 3: Length of time between discharge and receipt of IDD by GP

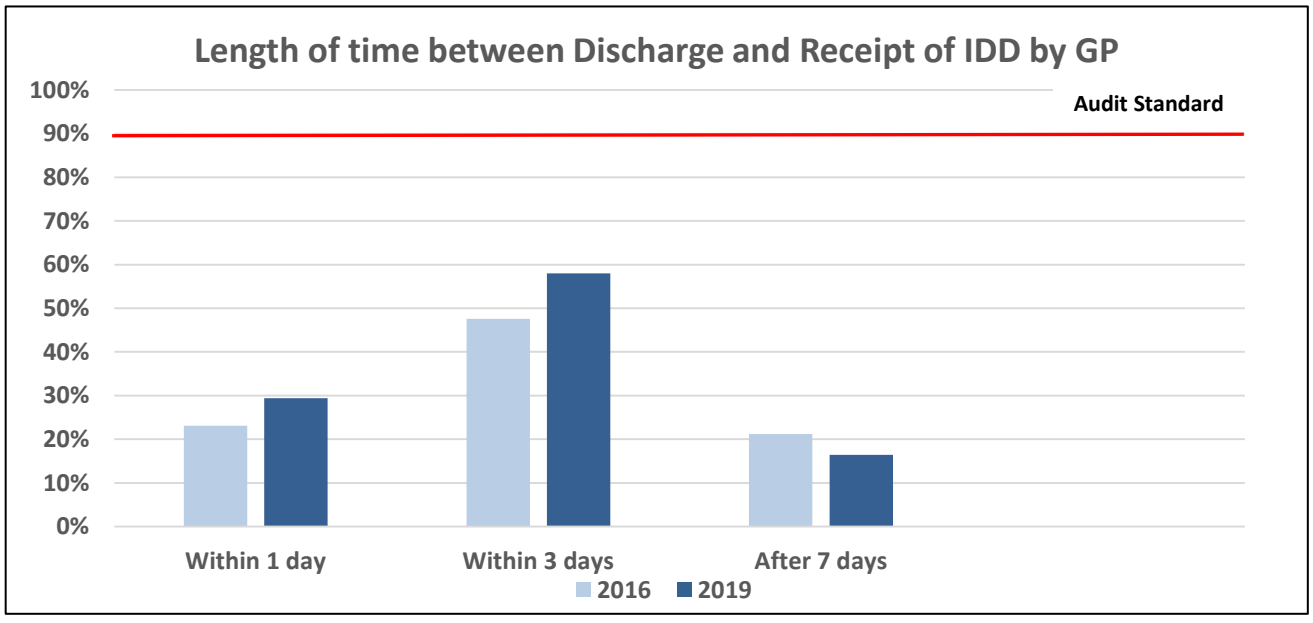


Table 5: Median time to IDD receipt

Criteria	2016	2019	
	No. of Days (all Trusts)	No. of Days (all Trusts)	Trust range (Days)
Median length of time (days) for IDD to be received by GP post discharge	3.8	**2.9**	**1.9 – 3.4**

2. Documentation of Allergy Status on the IDD Standard 2a – 2c: Target 90%

2a: All patients must have allergy status documented on the IDD.
2b: Where an allergy is recorded the sensitising agent should be noted.
2c: Where an allergy is recorded the nature of the reaction should be noted.

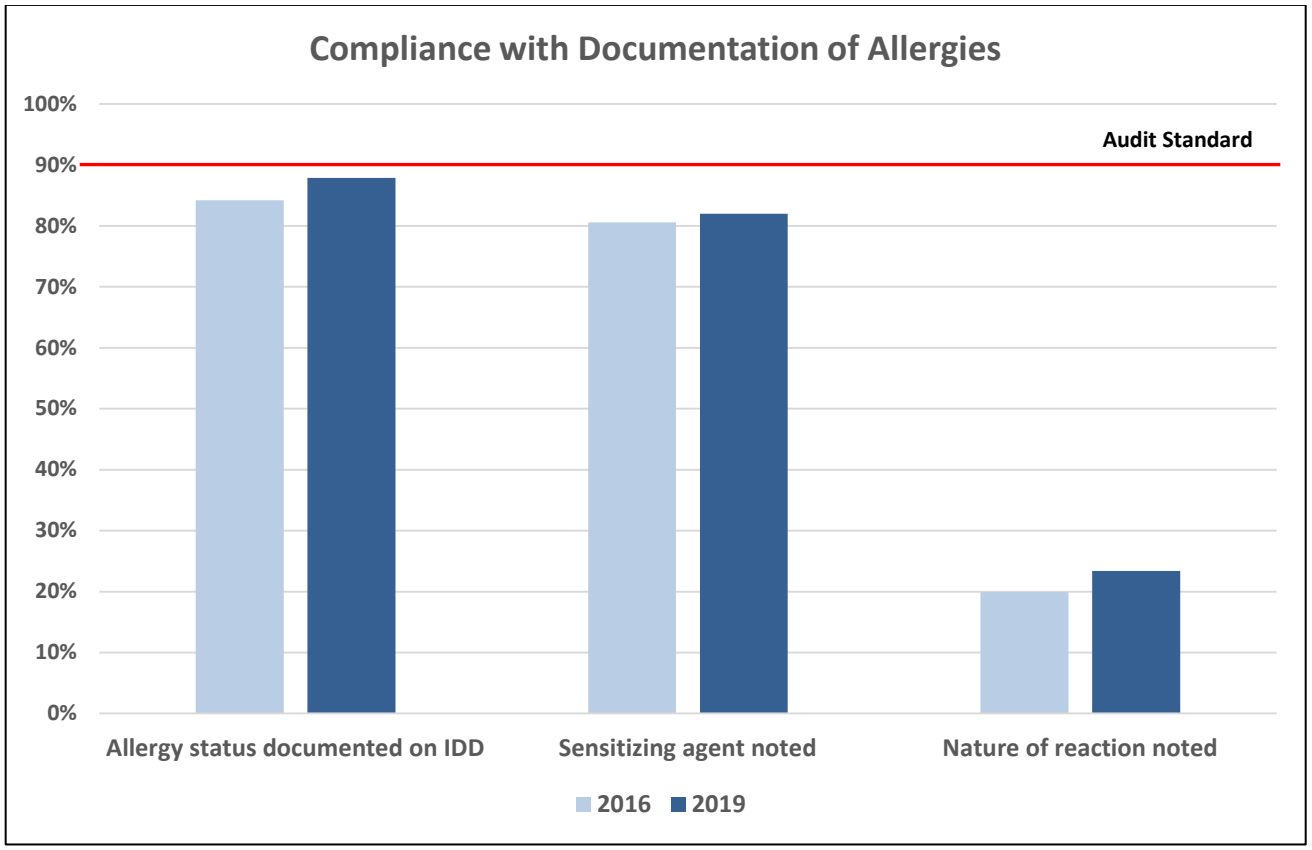
Exceptions

None

Table 6: Allergy Status documentation

Criteria	2016	2019	
	Compliance	Compliance	Trust Range (%)
a. Allergy status documented on IDD	84.2% (1044/1240)	**87.9%** (**1101 /1253)**	82.9 – 98.1
b. Sensitising agent noted	80.6% (379/470)	**82.0%** **(392/478)**	73.8 – 96.6
c. Nature of reaction noted	18.9% (89/470)	**23.4%** **(112/478)**	14.3 – 45.8

Figure 4: Documentation of details of allergy status



3. Medicines Reconciliation

Standard 3a – 3c: Target 90%

Where a change in a medication has occurred (new, changed or stopped) this should be noted on the IDD

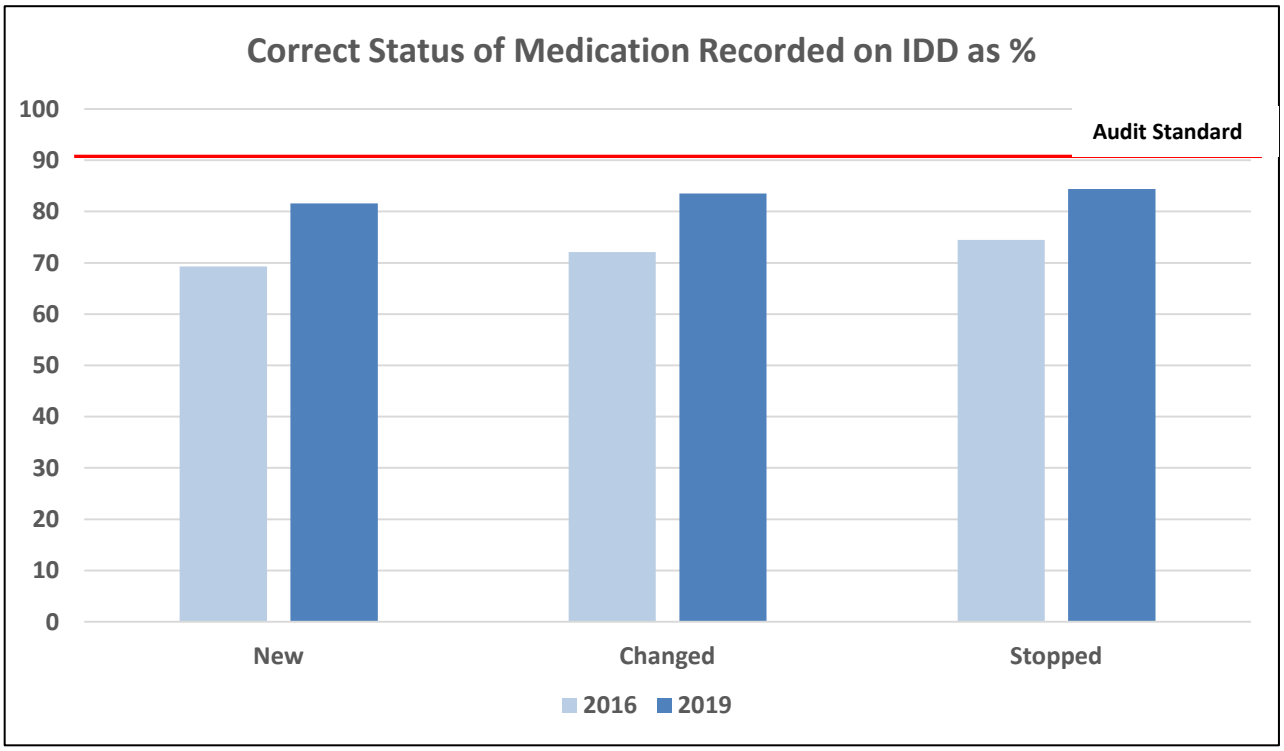
Exceptions

None

Table 7: Documentation of medicine status as New, Changed or Stopped

	2016	**2019**	
Medicine Status	Medicines with correct status documented	**Medicines with correct status documented**	**Trust Range (%)**
a. New	69.3% (1703/2456)	**81.6%** **(2276/2789)**	**71.7 – 96.9**
b. Changed	72.1% (315/437)	**83.5%** **(421/504)**	**76.7 – 88.3**
c. Stopped	74.5% (548/736)	**84.3%** **(574/681)**	**73.7 – 99.2**

Figure 5: Documentation of medicine status as New, Changed or Stopped



Standard 3d – 3f: Target 90%

Where a change in a medication has occurred (new, changed or stopped) the rationale for the change should be noted

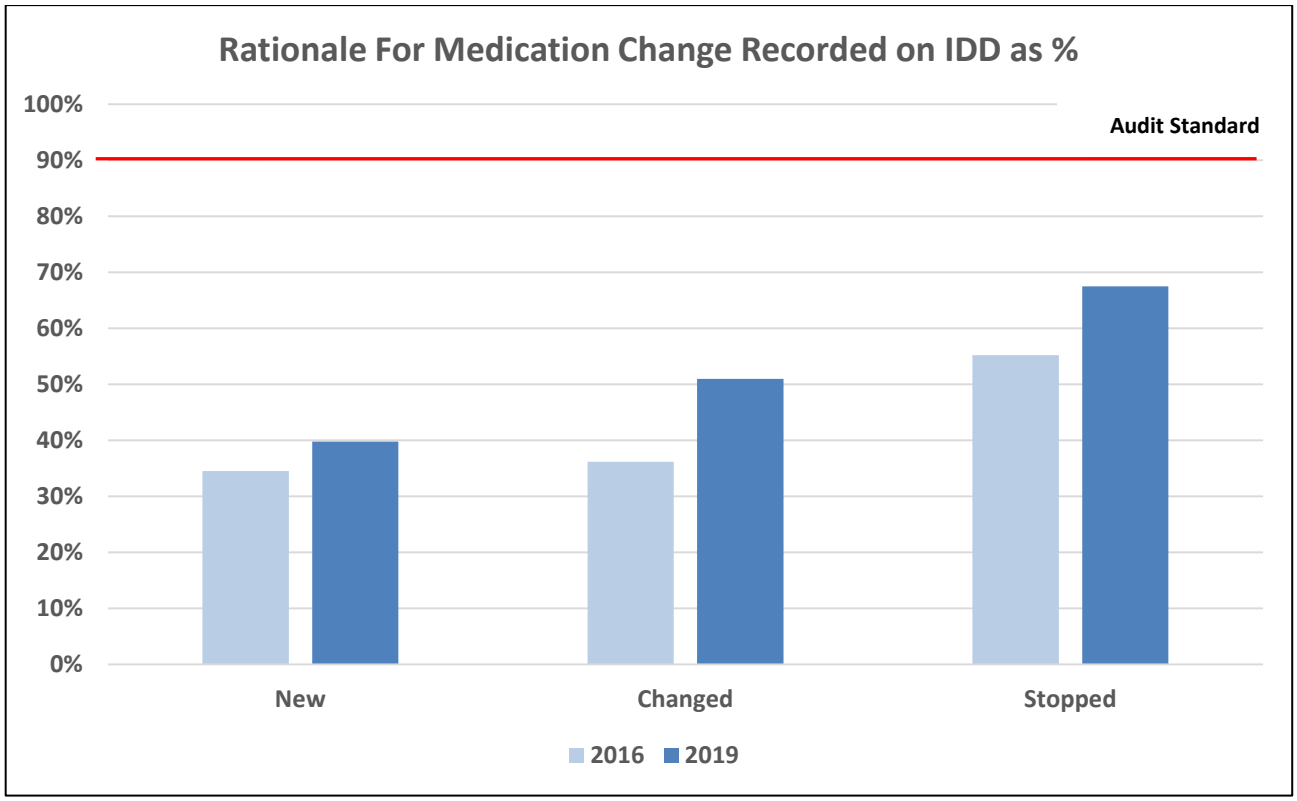
Exceptions

None

Table 8: Documentation of rationale for medicine status as New, Changed or Stopped

	2016	**2019**	
Medicine Status	**Medicine with rationale for change noted**	**Medicines with rationale for change noted**	**Trust Range (%)**
d. New	34.5% (848/2456)	**39.8%** **(1109/2789)**	**27.0 - 53.3**
e. Changed	36.2% (158/437)	**51.0%** **(257/504)**	**39.7 – 75.6**
f. Stopped	55.2% (406/736)	**67.5%** **(460/681)**	**57.6 – 82.4**

Figure 6: Documentation of rationale for medicine changes



4. Communication Regarding Anticoagulation

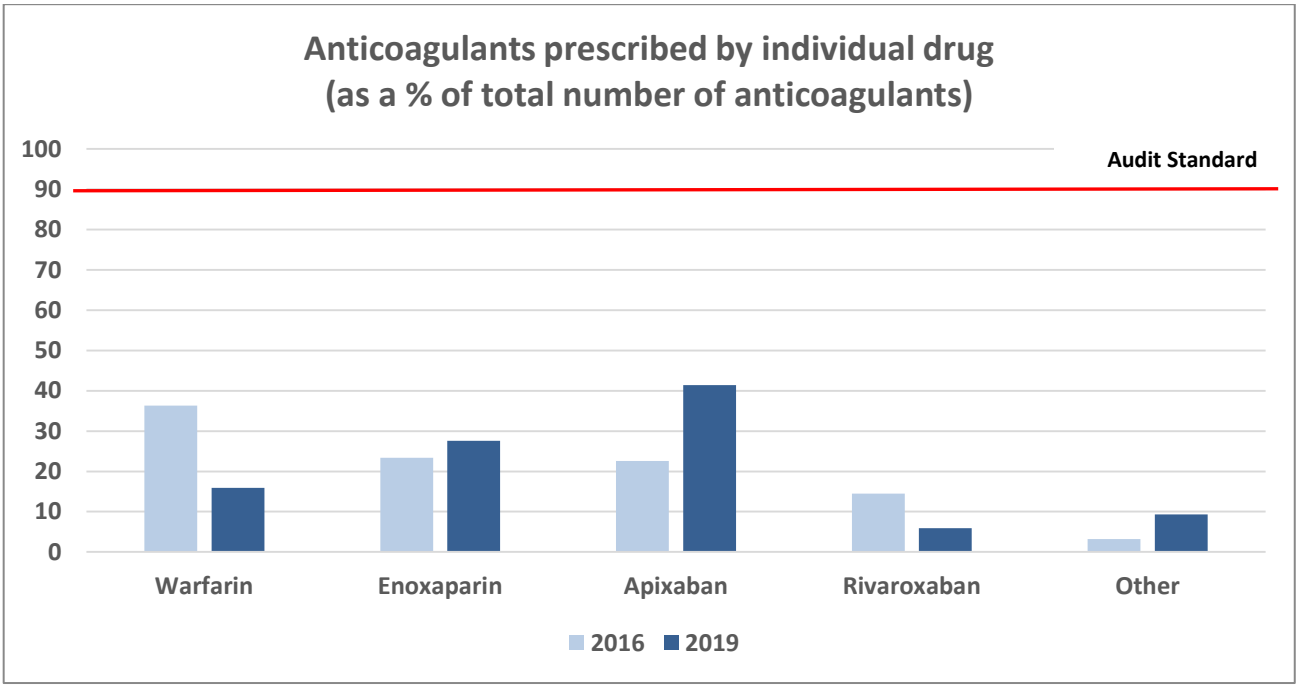
Table 9: Anticoagulation present on IDDs sampled

	2016	**2019**	
		Percentage of patients prescribed an anticoagulant	**Trust range (%)**
Percentage of patients noted to be prescribed an anticoagulant	20.0% (n=248)	**23.1%** **(n=290)**	**19.0 – 27.1**

Table 10: Anticoagulation breakdown by agent

Percentage of patients noted to be prescribed an anticoagulant	**2016** **(n=248)**	**2019** **(n=290)**
Warfarin	36.3% (90/248)	**15.9%** **(46/290)**
Enoxaparin	23.4% (58/248)	**27.6%** **(80/290)**
Apixaban	22.6% (56/248)	**41.4%** **(120/290)**
Rivaroxaban	14.5% (36/248)	**5.9%** **(17/290)**
Other	3.2% (8/248)	**9.3%** **(27/290)**

Figure 7: Prescription of Anticoagulants by Individual Drug



Standard 4a – 4d:

Where an anticoagulant has been prescribed the following should be noted on the IDD: (Target 90%)

4a - Reason for anticoagulation
4b - Duration of anticoagulation
4c - Counselling on anticoagulation
4d - Standardised template used for communication

Exceptions

None

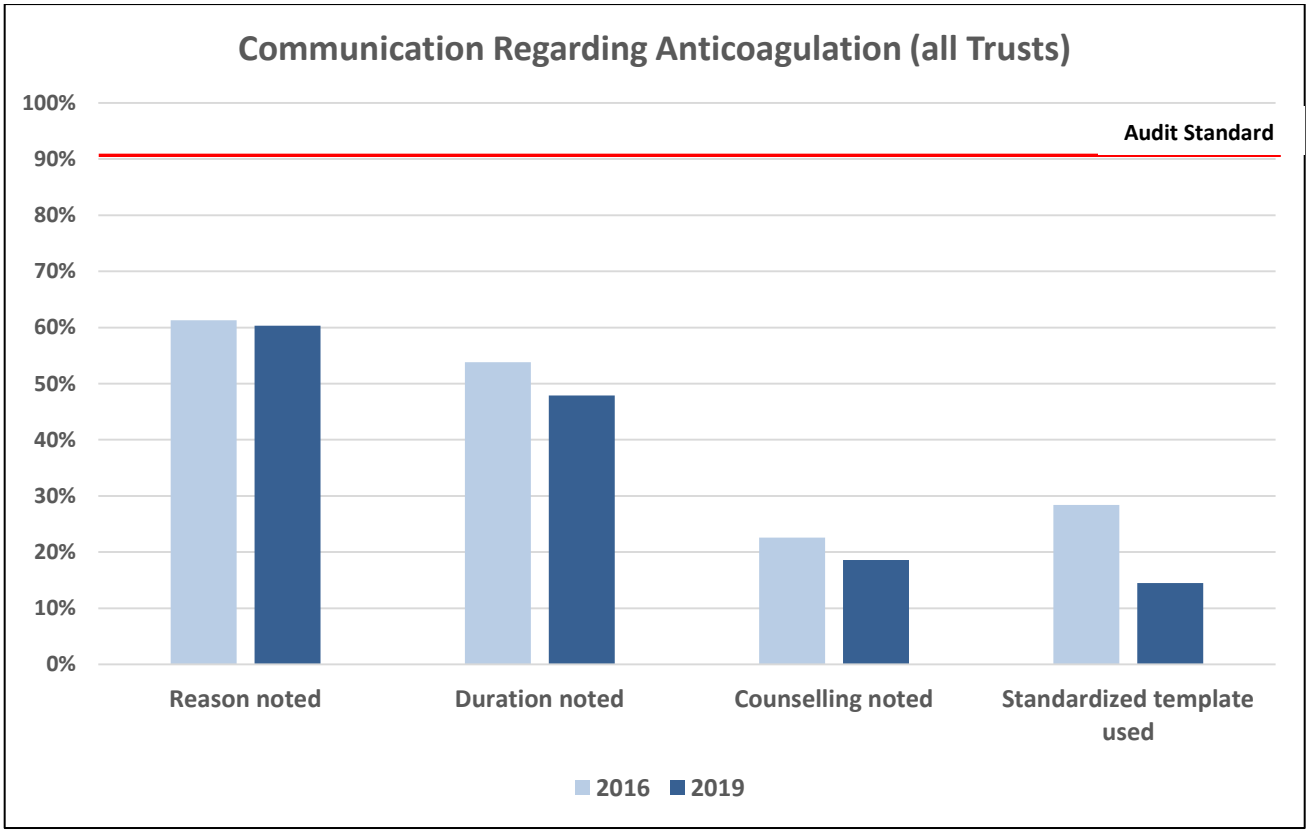
Compliance: (all anticoagulants)

Table 11: Detail provided on anticoagulation

Anticoagulant Criteria	2016	**2019**	
		Compliance	**Trust Range (%)**
a. Reason for anticoagulation noted	61.3% 149/243	**60.3%** **(175/290)**	51.4 – 68.6
b. Duration of anticoagulation noted	53.8%	**47.9%**	32.4 –

	129/240	**(139/290)**	71.4
c. Counselling on anticoagulation noted	22.6% 49/217	**18.3%** **(53/290)**	8.1 – 34.3
d. Standardised template used for communication to Primary Care (all anticoagulants)	28.4% 67/236	**14.5%** **(42/290)**	10.9 – 21.7

Figure 8: Documentation of details regarding anticoagulant medication



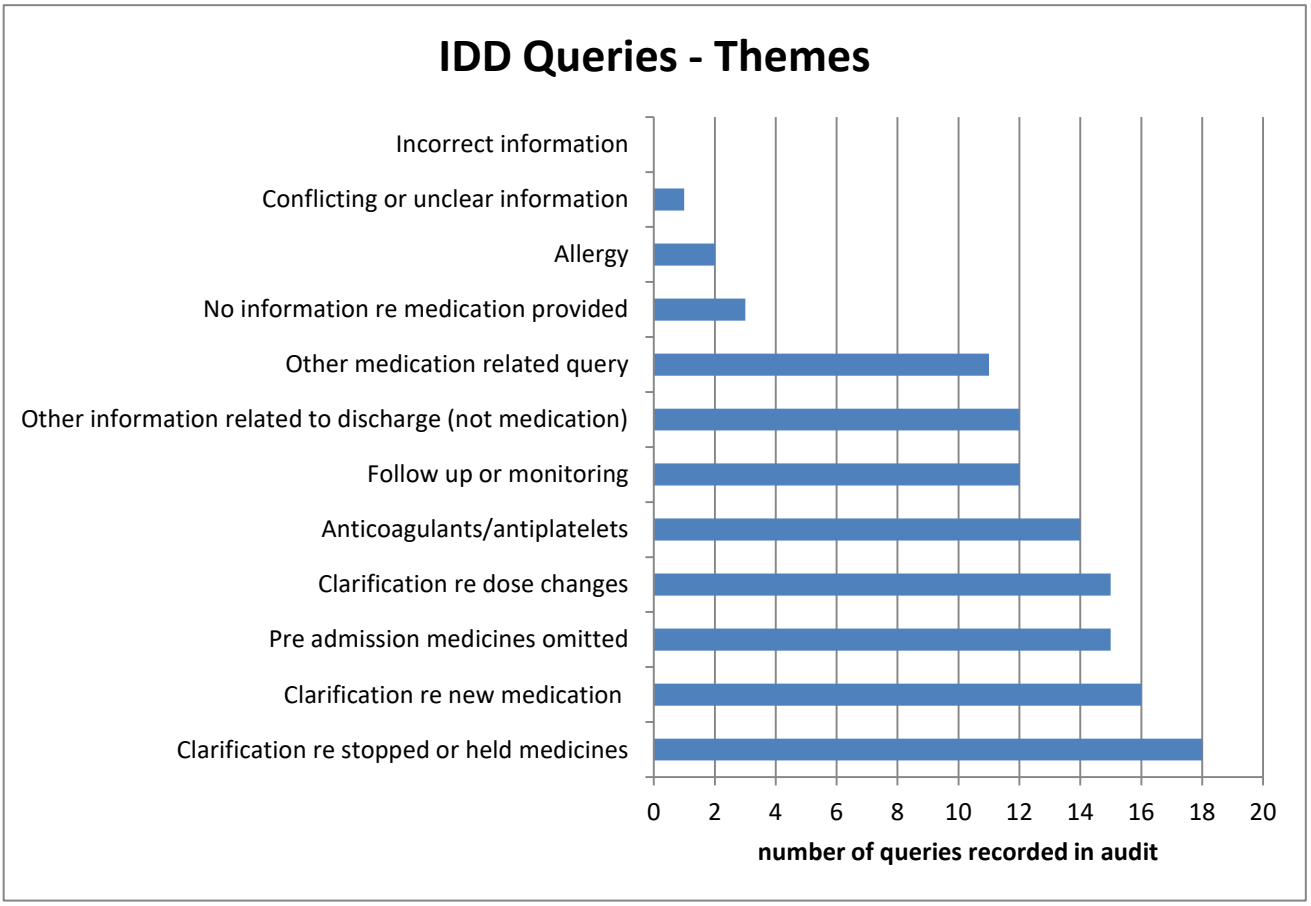
Clarification of queries with discharging hospital:

Table 12: Proportion of IDDs requiring clarifications with the discharging hospital

	2016	**2019**	
		Percentage of total number of IDDs	**Trust range (%)**
Percentage of IDDs audited which prompted the need to clarify a query with the discharging hospital	6.6% (n=82)	**8.7%** **(n=109)**	5.1 – 12.0

The queries on IDD can be summarized into nine broad themes:

Figure 9: Description of Queries



The full list of queries recorded in the audit is found in Appendix 11.

A selected example for each of the themes is given below

Theme	Example
Clarification re. stopped or held medicines	Amlodipine 10mg OD which the patient was on pre-admission was missing from the discharge letter. The staff nurse was contacted and found that this was held during admission due to AKI but restarted on discharge.
Clarification re. new medication	New medication noted but unclear reason as to why started
Pre-admission medicines omitted	Ranitidine was in the pre-admission medications however absent in the discharge letter, so clarification was needed
Clarification re. dose changes	Patient was discharged with Ramipril 2.5mg, however she was on 7.5mg before admission. If dose had been altered repeat U&E should have been requested in 1-2 weeks.
Anticoagulants/antiplatelets	Discrepancy between medicine prescribed and medicine mentioned in the course and management letter. Clexane/Enoxaparin. Duration noted as lifelong and then scribbled out - pharmacist unsure of what this meant. Unsure if patient was counselled - had to ring patient and hospital pharmacist
Follow-up or monitoring	GP follow-up instructions not clear about which bloods to monitor at 3 months and 12 months
Other information related to discharge (not medication)	The admission and the discharge dates were not specified on the discharge letter.
Other medication related query	Patient started on a drug that was hospital supply only. This was not very clear on the discharge letter.
No information re. medication provided	Lack of clarity over quantity and duration of antibiotics as patient had run out of them and the discharge letter had not yet arrived at the GP surgery.
Allergy	Patient contacted regarding allergy as was not previously recorded in patients notes and stated anaphylaxis from 2014
Conflicting or unclear information	There were two discharge letters sent out, one with the new medication and the other without. The decision was to start the medication was clarified and the GP decided to stop the medication- she relayed this information to the patient and his wife who is his carer

Observations & Discussion

The same methodology for the audit was used in 2016 and 2019 therefore the size and scope of the audits are comparable. This facilitates identification of changes and improvements in practice over this three-year period in Northern Ireland. The Specialist Pharmacy Service, NHS England audit on the quality of medication reconciliation on discharge from secondary to primary care[13] reported broadly similar sub-optimal results. There are no updated figures available from NHS England at the time of this report.

Embedded within the GP Assistantship training for final year medical students at QUB, this work demonstrates the ongoing availability of this data-set and its potential for demonstrating the effectiveness of any future quality improvement activity in this area. This is particularly relevant to any digital transformation initiatives such as the introduction of electronic prescribing systems in order that any subsequent implications for patient safety are captured and fully understood.

Collection of the audit data and reflection, by the student-cohort, on the quality of the information transferred between settings as they begin work as the F1 doctors, was intuitively predicted to be educational and instructive. It is anticipated that there is educational merit in involving soon-to-be doctors in this review to review the quality of current communication regarding medication reconciliation, given that they will play an important role in writing IDDs as junior doctors. Formal feedback from the auditors was not sought in 2016 to confirm if this was indeed the case. Informal feedback through standard module reviews suggests that this activity is well-regarded and educationally valued by the student auditors. Formal assessment of the educational benefits of the audit would ensure this original objective of the audit is being met. Consideration should also be given to obtaining feedback from auditors in terms of suggested improvements to the audit methodology.

Demographic Data

The distribution of IDDs re-audited by Trust is influenced by the location of the GP Practices hosting medical students for the Assistantship training, but the data remains largely reflective of the percentage of patients admitted to each HSC Trust annually as per Department of Health figures[14]

Medicines Data

In 2016, a mean of 8 medicines per patient were prescribed on the IDD across the HSC. In 2019 this has increased marginally to a mean of 8.3 medicines.

There has been little change in the mean number of medicines which are **new** (2.0 vs 2.2) **changed** (0.4 vs 0.4) and **stopped** (0.6 vs 0.5) per IDD (2016 vs 2019 respectively). This suggests stable prescribing patterns, with deprescribing unlikely to occur in secondary care as an inpatient.

Quality standard 1 – Length of time between discharge & receipt of IDD by GP

There has been an overall improvement in the time taken to transfer information to the GP after discharge. Electronic Document Transfer (EDT) renders IDDs immediately available to the GP through the NI Electronic Care Record (NIECR). This is dependent on having systems in place both in secondary care and primary care to utilise this

method of document transfer. Variation in the implementation of EDT by NI HSC Trusts may explain some of the Trust range differences, and why the figures for IDDs received within 24 hours of discharge are not higher. Also, there may be variation in processes within primary care with respect to document management that also influence the measurement of this quality standard.

For Practices relying on receipt of the hard (paper) copy of the IDD rather than electronic document transfer, delays may be apparent. This raises a question about the accuracy of the data collected for this quality standard, in particular whether the NIECR was consulted, or if the results only reflect paper copies of IDDs received, which will inevitably take longer to reach the GP. Anecdotal feedback from GPs provides insights of IDDs being received variably by 1. EDT alone, 2. EDT and a later paper copy and 3. A paper copy only. Some report differences in the EDT copy and the later paper copy in which changes have been made by the responsible consultant. Future audit methodology should be adapted to clarify this issue, which would help to measure the utility of the EDT process. However, it remains a concern that a small number of IDDs are reported to have not been received within seven days of discharge, although there has been improvement since 2016.

Quality Standard 2 – Documentation of Allergy Status on the IDD

The documentation of allergy status and sensitising agent showed good compliance with the quality standard in 2016, and the figures for 2019 show further improvement increasing from 84.2% to 87.9% (allergy status) and 80.6% to 82% (sensitizing agent) respectively. Variation between the Trusts with regard to documentation of allergy status is noted once more. Recording of the nature of the allergic reaction also shows improvement but is significantly less commonly recorded. As no medicine should be prescribed without reference to allergy status, electronic prescribing systems could offer the advantage of enabling a 'forcing function' to ensure allergy status is appropriately recorded 100% of the time.

Quality standard 3 – Medicines Reconciliation

While in hospital, new medication may be started, and existing medication may be changed or stopped. In order to support medication safety at transitions of care it is essential that the IDD includes *'a comprehensive and reconciled list'* of the patient's medication at the time of discharge, with any changes highlighted and the rationale for such changes explained[4].

Results in 2019 show improvements in the notation regarding all types of medication changes on the IDD and results are now close to the audit target standard, with some Trusts approaching 100% compliance in certain criteria. Once again there is variation across the Trusts which would support future regional collaboration to share effective practices. While there has also been improvement in documentation of the rationale for all types of medication change, this remains less commonly recorded. It is likely that such missing information could contribute to the queries recorded by auditors where clarification of new medication, dose changes or stopped or held medication was requested.

The expanding presence of pharmacists in secondary care, both on admission and at discharge, may have contributed to improvements in medicines reconciliation noted since the previous audit in 2016, through their work on checking the safety and appropriateness of prescribed therapy, and also the accuracy of transcription. Correct use of the NIECR as a reliable source for pre-admission medication may have

contributed to the improvements seen. Also noted is the increasing utilisation of pharmacist prescribers in the hospital setting in order to generate the discharge letter. Studies have shown that pharmacist-written IDDs contain significantly fewer errors, omissions and unclear information in comparison to doctor-written IDDs[15,16]. This also may have contributed to the improvement in the quality of the medicines reconciliation and hence the audit figures reported.

It is anticipated that electronic prescribing systems will offer a more efficient method to keep track of medication changes in hospital and enable more accurate onward communication of such changes to primary care – something future audit activity should capture. One key feature of any prescribing system is contemporaneous explanation for any medication changes within the medical record and/or the medication record, whether in Secondary or Primary Care. Low or variable compliance with such recording could present difficulties at transitions of care and this may be contributing significantly to the problems faced by F1 doctors and pharmacists in preparing the discharge letter. It would be valuable to follow this up with F1 doctors and Ward Pharmacists or include this in any future quality improvement efforts.

Quality Standard 4 – Anticoagulation

Since the initial audit in 2016, WHO has highlighted the scale and consequences of medication-related harm and their 2017 Global Patient Safety Challenge was launched to promote the development of safer prescribing systems. Special priority was given to improving medication safety at transitions of care and to improving safety in high-risk situations. Prescribing anticoagulants is one such high-risk situation.

The audit results in 2019 are evidence of the change in prescribing practice with regards to oral anticoagulation. The traditional use of warfarin is clearly being replaced by direct oral anticoagulants (DOACs). This may have contributed to the observed reduction in the documentation regarding indication, intended duration and counselling since the original audit. This information would commonly be included as standard within warfarin discharge letter templates but may be omitted if such a template is not being routinely used for DOACs. This may be one explanation for the reduction in template use noted since 2016. It is also possible that during the audit, data from an IDD was collected without reference or access to the anticoagulant template that accompanied it thereby showing a reduced compliance with this quality standard, and future methodology should consider this. There may be merit for the HSC Trusts to reflect on what (if any) additional information on anticoagulation is recommended to accompany discharge letters when DOACs are the chosen form of anticoagulation, while maintaining focus on the detailed communication that is essential for safe prescribing of warfarin.

It would be considered essential that in order to prevent patient harm and enable the safe transfer of patients prescribed anticoagulant medicines, a standard information set should be consistently and accurately transferred from secondary to primary care.

It should be noted that this analysis on anticoagulants is based on a small subset of the overall data 23% (290 of the 1253) IDDs reviewed had anticoagulants recorded), therefore it is important to acknowledge that this audit may not sufficiently capture reliable details about the true quality of communication around anticoagulation therapy. This could be assessed in more detail as part of a separate project.

Once more, a variation between Trusts is apparent in the area of anticoagulation. Concerted efforts to understand the reason for local variation and to share good practice would contribute to improving compliance with this quality standard regionally.

Clarification of queries

As part of the data collection, auditors were asked to identify if there was a need to contact anyone in the discharging hospital to clarify or resolve any queries related to this discharge. Any queries raised during the audit were discussed with the GP tutor or General Practice Pharmacist before further action was taken. The number of IDDs in this audit requiring clarification was found to have risen to 109, or 8.7% of all IDDs audited (compared with 82 IDDs, 6.6% in 2016). Although this remains a small proportion of the total, it is once again worth considering that for the 600,000+ inpatient and day case admissions each year in the HSC in Northern Ireland, this figure of 8.7% would equate to approximately 52,000 potential queries. This is an increase in real terms of 12,000 queries/year since the original audit was performed.

Auditors were once again asked to briefly describe the queries, and these were reviewed and grouped into themes. Similar themes emerged in 2019, with queries often generated when insufficient information was provided regarding medication changed in hospital. Uncertainty continues to arise if pre-admission medication is not recorded accurately on admission to hospital, followed by a lack of detail regarding this medication on discharge. A lack of clarity about anticoagulants continues to be prominently reported and this may reflect the variation in use of a standardized template as reported in Quality Standard 4d. Some queries relate to follow-up and monitoring plans, and while these are not new (grouped in the “Other” section of queries in 2016), this is important as health care provision moves increasingly into primary care.

Although this is a relatively small increase in the number of queries, it is likely to reflect the positive influence of the steadily growing number of GP Pharmacists since the original audit. They are taking on a key role in performing medication reconciliation following discharge, previously done by GPs. These queries represent identification of medication safety concerns at this transition of care, and GP Pharmacists, together with their Pharmacist colleagues in secondary care, will be a pivotal group in influencing regional strategy to comply with the WHO ‘Medication Without Harm Challenge’. One significant problem raised by GP Pharmacists is the lack of an effective process to raise and resolve queries between settings. There are a number of obstacles – there may not be a Ward Pharmacist available to consult, it may be difficult to contact the correct member of the patient’s medical team in hospital, and the patient notes and medicine Kardex may have returned to filing. This may highlight another concern; it is not recorded whether patients were consulted to help clarify these queries, but it is probable that this occurs. Therefore these queries may suggest that patients themselves were unclear about changes to their medication while in hospital. It would be essential to follow this up in any subsequent audits and expand upon the concept of healthcare professionals working in partnership with patients to improve medication safety[1].

Pharmacist presence within GP practices

On receipt of the IDD in Primary Care, medicines reconciliation should be carried out as soon as possible to ensure all medication changes are accurately updated on the GP prescribing system. Traditionally this task has been done by GPs alongside other demands on their time. With the introduction of GP Pharmacists in 2015 this workload can be shared. There has been a phased introduction of this scheme across NI with the intention of providing every practice with access to pharmaceutical advice and support[17]. It could be anticipated that a significant proportion of the work of medication reconciliation following discharge would transfer from GPs to GP Pharmacists and it would be valuable to measure this in future audits.

Review of the Implementation of Recommendations from the previous Audit

The previous audit report published in April 2017 contained a number of recommendations for improvement. To date, only some of these recommendations have been fully implemented.

Implemented:

- A three yearly full re-audit should be undertaken with an annual interim audit as a learning exercise for medical students in the pre-Foundation Assistantship Programme.

Partial:

- An agreed template for the IDD should be developed in conjunction with Primary Care and adopted by all HSC Trusts. This should include mandatory fields to ensure that all quality indicators are completed appropriately.
- Initiatives aimed at the timeliness of delivery of the IDD should be implemented across all HSC Trusts. Where possible the IDD should be generated and delivered electronically.

Not implemented:

- A regional quality improvement project should be established involving representatives of all HSC Trusts and Primary Care, aimed at improving the quality and safety of IDDs.
- A regional anticoagulation template within the IDD as a means to communicate all necessary information on all anticoagulants (including warfarin, DOACs and injectable anticoagulants) should be developed.
- Development of a standardised process for local escalation of queries related to the IDD should be pursued.
- A multidisciplinary educational programme at both undergraduate and postgraduate level should be developed to support best practice and ensure medicines reconciliation is undertaken at all transitions of care.

The WHO recommends ‘locally relevant improvement programmes’ to ensure that progress towards defined goals can be measured as part of its global medication safety challenge. Strategic plans including short and long-term objectives supported by long-term leadership commitment were emphasised. It could be argued that without this in place in Northern Ireland the ability to meet the quality standards is likely to continue to be compromised and suboptimal.

Learning points related to audit methodology

The audit did not gather any information about the IDD template used. Anecdotally it is noted that there are various IDD templates used by Trusts, sometimes even within the same ward. Future audits could consider noting the format of the IDD, if there are any mandatory fields, whether it is handwritten or electronic and the method employed to transfer the document to Primary Care.

In this audit only IDDs that were received by the GP practice were audited, and IDDs that did not reach the GP were not captured. Future work may expand upon this theme.

It is noted that the NHS England SPS audit required allergy status to be recorded in three components to be considered compliant with the audit standard i.e. sensitising agent, nature and date of reaction. Future audits may wish to consider reporting in a similar manner.

Medicines reconciliation should occur at every transition of care and this audit did not capture if any standardized medicines reconciliation processes existed in Primary Care to ensure GP records were updated appropriately on receipt of the IDD. Involvement of GP Practice Pharmacists in this activity is becoming more widespread and future audit methodology may capture this activity either as part of this audit or as a standalone piece of work.

Primary Care queries relating to the information contained within the IDD were not graded for severity i.e. potential harm; it may be useful to consider undertaking this activity in future audits.

Resolution of queries needs to be swift and complete. However, this audit did not measure whether queries were able to be resolved or what difficulties were encountered in doing so. Nor did the audit explore patient understanding of medication changes during admission. These are areas which could be expanded upon in order to inform any future work on developing a formal pathway for resolution of queries from Primary Care post-discharge.

Feedback was not sought from auditors to ensure that the original objectives of the audit being educational and instructive were met. It is anticipated this would strengthen the audit methodology to further meet its aims.

Recommendations

On consideration of the findings of this re-audit the following recommendations are made:

1. The initiation of a regional strategic plan to improve medication safety during transitions of care within Northern Ireland, to meet the requirements of the WHO Patient Safety Challenge. This should include specific and measurable goals to monitor improvement over time and involve relevant stakeholders including service-users.

2. Implementation of Electronic Document Transfer as standard for the IDD, from secondary to primary care across all HSC Trusts to ensure accurate and timely transfer of information.

3. Collaboration between HSC, Trusts and all bodies representing General Practice in Northern Ireland (including the General Practice Committee of the British Medical

Association, General Practice Federations and the head of General Medical Services in the Health and Social Care Board) to understand the reason for local variations and to share best practice, with a view to developing an agreed electronic template for the immediate discharge document which is adopted by all HSC Trusts. This would reflect the Regional Guidelines from GAIN in 2011 and more recent guidance from the Professional Records Standards Body18 and should include:

- Mandatory recording of allergy status, with the sensitising agent and nature of reaction noted
- Fields to ensure that the status of medicines (continued, changed or stopped) is recorded, along with the rationale for any such changes

4. Agreement on a standardized format for communication about anticoagulation to support safe prescribing of warfarin alongside the evolving use of Direct Oral Anti-Coagulants (DOACs). This should include details of the indication, duration of treatment, counselling of the patient and other clinically relevant information where appropriate e.g. renal function. Ideally this would form part of the electronic template for the IDD.

5. Engagement with the data collectors should be maintained, to seek formal feedback on how their participation contributed to learning and their subsequent generation of IDDs as Foundation Year 1 (F1) doctors.

6. Collaboration between Trusts and GP Federations using a Quality Improvement (QI) approach to develop processes to raise and resolve queries in an effective and timely manner. It would be anticipated that adoption of electronic prescribing systems in Trusts should have a positive impact on communication about medication, and it would be important to observe whether this translates into improvements in patient care.

External Review, September 2020

This report has been externally reviewed by **Chetan Shah, Chief Pharmacist for the Hertfordshire Partnership University NHS Foundation Trust** who led on a collaborative audit across England which also looked at the quality of medication related information when patients transferred from secondary to primary care. The audit, undertaken by NHS England Specialist Pharmacy Service, was published in 2017[19], and we are fortunate to have had her expertise and knowledge on a subject of such importance to national patient safety.

Summary Points of External Peer Review

1. In future data collections it would be valuable to include measurement of the number of IDDs received electronically and as traditional paper copies, and to correlate this with time taken for receipt of the IDD by the GP.

2. Each Trust has designed their IDD to comply with the GAIN Guidelines on Regional Immediate Discharge Documentation, 2011. It may be helpful to analyze these templates to show how they incorporate these guidelines, and to explore whether individual differences in format could be influencing the variation observed between Trusts

3. Where there is variation in results between Trusts it would be important to explore the reasons for this within each organization

4. The quality of communication regarding anticoagulants has become worse since 2016 and is a finding of notable concern. There would be merit in exploring this in more detail, including qualitative studies with input from GPs and Practice Pharmacists, as well as Hospital Doctors and Pharmacists.

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Appendices

Appendix 1 - Results by Trust (anonymised)

Criteria	**Overall NI figure**	Trust 1	Trust 2	Trust 3	Trust 4	Trust 5
Medicines data						
Mean total medicines on IDD	**8.3**	8.9	7.2	8.2	8.5	8.4
Mean number of medicines annotated as '**New'** on IDD	**2.2**	2.2	2.0	2.1	2.4	2.1
Mean number of medicines annotated as **'Changed'** on IDD	**0.40**	0.44	0.33	0.57	0.41	0.32
Number of medicines annotated as **'Stopped'** on IDD	**0.54**	0.71	0.51	0.41	0.48	0.66

Quality Standard 1: Length of time between discharge and receipt of IDD by GP						
Median time for receipt of IDD by GP (days)	**2.89**	1.86	3.20	2.33	3.25	3.40
% IDD received within a day	**29.4**	46.3	23.6	37.6	26.0	24.0
% IDD received within 3 days	**58.0**	73.7	56.2	68.8	52.9	50.7
Percentage of IDD taking >7days to reach GP %	**16.4**	9.7	19.0	7.0	17.6	22.7

Quality Standard 2: Documentation of Allergy Status in the IDD						
Allergy status completed %	**87.9**	90.3	83.9	98.1	82.9	93.0
Sensitising agent noted %	**82.0**	87.5	73.8	96.6	75.3	88.2
Allergy reaction noted %	**23.4**	40.3	14.3	45.8	15.3	19.4

Criteria	**Overall NI figure**	Trust 1	Trust 2	Trust 3	Trust 4	Trust 5
Quality Standard 3: Medicines reconciliation						
Percentage of 'new' medicines highlighted as new	**81.6**	96.9	71.7	88.4	75.4	88.4
Percentage of 'changed' medicines highlighted as changed	**83.5**	88.3	77.8	85.6	85.8	76.7
Percentage of 'stopped' medicines highlighted as stopped	**84.3**	99.2	83.1	83.1	73.7	88.7
Percentage of 'new' medicines with rationale for prescription stated	**39.8**	27.0	29.2	53.3	39.5	52.0
Percentage of 'changed' medicines with rationale for change stated	**51.0**	62.3	40.7	75.6	43.2	39.7
Percentage of 'stopped' medicines with rationale for discontinuation stated	**67.5**	82.4	71.0	63.1	57.6	68.7

Quality standard 4: Anticoagulation						
Percentage of patients prescribed an anticoagulant	**23.1**	21.1	19.0	22.3	24.4	27.1
Percentage of all anticoagulants for which **indication** for anticoagulation noted %	**60.3**	51.4	65.2	68.6	57.3	62.9
Percentage of all anticoagulants for which **duration** of anticoagulation noted	**47.9**	32.4	43.5	71.4	46.4	50.0
Percentage of all anticoagulants for which **counselling** on anticoagulation noted	**18.3**	16.1	18.3	17.4	8.1	34.3
Percentage of all anticoagulants for which a standardised **template** used	**14.5**	18.9	21.7	14.3	10.9	12.9

Pharmacist Availability in GP Practice						
Pharmacist available in GP practice %	**62.5**	29.2	13.0	31.3	51.8	41.2

Queries on IDDs						
Percentage of IDDs with need to resolve issues %	**8.7**	5.1	5.8	7.6	12.0	8.7

Appendix 2 - Queries on IDDs

Pre-admission medicines omitted from letter
Atorvastatin was not listed on IDD, as it was prescribed by a separate secondary healthcare provider and had not been classified as "repeat" prescription yet under GP medication
Consultant secretary contacted as medications not counted for
Etoricoxib was in the pre-admission meds however absent in the discharge letter so clarification was needed
handwriting difficult to read- unsure of procedure carried out/ department also only included 1 medication whereas patient is on 7
No information on 11 pre-admission drugs. Confusion over Clopidogrel to be taken while on Enoxaparin.
No meds mentioned on discharge but no 15 pre-admission. Not mentioned as “no change to pre-admission medication”,
Query about some drugs which were not included in the IDD but were in the patient's acute list, started by the consultant during their last admission (mouth wash, antimicrobials)
Ranitidine was in the pre-admission meds however absent in the discharge letter, so clarification was needed
NO MEDICATIONS INCLUDED ON IDD - patient on 17 pre-admission medications, no allergies stated
Cetirizine not noted in IDD
Co-codamol not noted on IDD
Patient on 12 regular medications, only one listed on discharge letter.
Sitagliptin was omitted from the IDD with no indication as to whether it had been stopped and, if so, why.
On the IDD the patient was said to be on no regular medications, however from the GP records the patient was on 3 medications and they had been recently dispensed, therefore this information on the IDD was inaccurate.

Clarification re stopped or held medicines
10 meds on discharge, however 12 pre-admission. No mention of any meds stopped or changed.
Check on a medication that was noted as preadmission but previously stopped prior to admission.
Drugs stopped prior to admission but not updated on ECR. Drugs restarted upon admission and therefore needed to be checked post-discharge.
if patient was to continue to previous inhalers or stop them and only remain on new inhaler
Irbesartan stopped post admission with no explanation as to why

Needed clarification on a drug that had been prescribed but not issued previously that had then been written up as a pre-existing medication in the IDD.
Patient was restarted on bisoprolol without an explanation - which was previously stopped
Regarding the reason for stopping a drug
The GP medication summary had two-month supply of medication prescribed at end of January. No mention had been made on the discharge letter. Asked the GP and the patient had since stopped the medication before being admitted to hospital as it was not effective. Therefore, the patient was not taking the medication prior to admission and therefore didn't need to be on discharge summary.
The letter said hold medicine for 1 week until review. But the hospital review date is in 1 month. Clarification is needed.
Levothyroxine dose to restart was not clear
Amlodipine 10mg OD which the patient was on pre-admission was missing from the discharge letter. The staff nurse was contacted and found that this was held during admission due to AKI but restarted on discharge.
The IDD explained that the patient no longer wanted to inject insulin or measure her CBGs, so lantus was no longer on her prescription but was not in the 'medications stopped' section. Then a diabetic nurse contacted the GP practice to explain that the patient was going back onto lantus, so conversations were held over the phone to clarify when this was decided and who restarted the lantus.
No reasoning behind the medications being stopped
carbamezepine and risperidone both stopped but not mentioned on IDD. Haloperidol, acamprosate, and co-codamol started (and haloperidol increased) with no follow up advice.
Stopped medicines - information not given as to when to re-start, if GP needs to recheck U&E/BP etc. Check if new and repeat medicines are available in soluble form as new swallowing problem noted on discharge - not mentioned in letter.

Clarification re new medication
Hospital contacted GP to start urgent Rx of amlodipine and to monitor BP
New medication noted but unclear reason as to why started
One drug started for patient but no reason given
Patient sent home with no SCG on why he was on enoxaparin. Ward and family contacted to clarify.
The patient was on a red list drug, so the pharmacist simply contacted the hospital to confirm that they would look after his whole prescription due to his complex treatment and condition.
There were two discharge letters sent out, one with the new medication and the other without. The decision was to start the medication was clarified and the GP decided to stop the medication- she relayed this information to the patient and his wife who is his carer
Atorvastatin was stopped due to side effects, but simvastatin was restarted?
duration that iron was supposed to be given
The patient was admitted with C Diff but was put on probiotics. The practice pharmacist contacted the hospital who arranged with them that these should be stopped, then the patient was contacted.
Clarification of new medication started which was on admission drugs in IDD but not pre-admission medication in GP

clarify if patient has been started on adcal D3 and alendronic acid from this admission
Needed to clarify whether a patient was continuing with chemotherapy medication following discharge
Olanzapine started during admission. Written in drugs held/stopped in hospital section. However, in this section it has been written olanzapine increased.

Clarification re dose changes
changes to creon, duloxetine dose and paracetamol without explanation.
Dosage of medication
dosage, old medication included on discharge
Patient was discharged with Ramipril 2.5mg, however she was on 7.5mg before admission. If dose had been altered repeat U&E should have been requested in 1-2 weeks.
PT was discharged on ramipril 2.5mg, patient on 7.5mg according to GP records. Likely a typo as not highlighted as a change on letter.
Why the dose of ivabradine had been reduced
Disparity between recorded levothyroxine dose and the dose prescribed pre-admission on EMIS
Needed to clarify a dose reduction of gabapentin as there was a large decrease and not much clinical information given regarding this.
Taken off pre-admission duloxetine. Bisoprolol increased with no reason.
Clarify if co-beneldopa was to be taken 3 or 4 times a day
Vitamin B12 changed to OD instead of BD but listed in unamended medications -? mistake. Pharmacist going to leave BD and check B12 levels.
An increase in the dose of citalopram, with no note made as to why
Different beta blocker dose on discharge and GP system. No indication if there was a change in hospital.
Drug clarification: confirmed that Diazepam was PRN/BD

No information re medication provided
NG feeding was required, and it was not specified in the medications which type or any specific details regarding when and how it was to be organised
unclear over quantity and duration of antibiotics as patient had ran out of them and the discharge letter hadn't yet arrived at the GP surgery.
No medications on the discharge letter. Pharmacy section not filled out.

Anticoagulants/antiplatelets
Conflicting target INR range between discharge letter and past INR range used
How long clexane to be continued for.
Letter went to nursing home and pharmacist was not made aware of increase to apixaban dose as letter had not come through and nursing home had 28-day supply
patient discharged and no shared care guidelines were given in relation to enoxaparin.
Dosage of Bisoprolol was queried and Triagrelor was stopped but not restarted post admission
There was a query as to the reason the patient was on apixaban. Following review of their notes and online clinic letters it was gathered that their pacemaker had picked up 4 distinct episodes of AF over 6 months ago. At the point it was identified the cardiologist started this patient on apixiban for this reason. This was not readily apparent in secondary care and so was queried on the IDD

Discrepancy between medicine prescribed and medicine mentioned in the course and management letter. Clexane/Enoxaprin. Duration noted as lifelong and then scribbled out - pharmacist unsure of what this meant. Unsure if patient was counselled - had to ring patient and hospital pharmacist
ECG was requested on discharge letter but was not available in primary care. Pharmacist sought clarification on apixaban dosage from drug company as patient had low platelet count. Please note that standardised anti-coagulation template may not be available in SE Trust
Medication stopped without explaining when to restart if ever (anticoagulant)
101kg patient prescribed 40mg enoxaparin instead of 60mg - consultant was contacted and they were happy with this dose.
Instructions on restarting ferrous fumarate were given in IDD however note in Doctors Comments "stopped taking DOAC (apixaban) in view of menorrhagia and iron deficiency anaemia" not in stopped drugs section or any instructions regarding restarting in IDD.
No anticoagulation was prescribed to the patient however a warfarin form was attached to the discharge uncompleted.
Shared care for clexane but no information

Follow up or monitoring
Discharged on too much pain relief - tramadol, Shortec and codeine phosphate
GP TO REVIEW RENAL FUNCTION
No SCG were included - high risk medications. the pharmacist was happy to go through the Lithium monitoring with patient until SCG arrived
Patient was discharged on Lithium however no Shared care guidelines were sent.
GP follow up instructions not clear about which bloods to monitor at 3 months and 12months
Discharge stated follow up at diabetes clinic but no information as to when or if this was booked already.
The GP was to review if there was ongoing need for a certain medication

Allergy
Patient is taking regular statin but is noted to have an allergy to atorvastatin. Unclear if doxycycline is a new medication/increased dose
Patient contacted regarding allergy as was not previously recorded in patients notes and stated anaphylaxis from 2014
query over lack of allergies completed.

Other information related to discharge (not medication)
Advice regarding management of a nephrostomy tube
Discussion with hospital registrar on patient work up
IDD explaining history differed in a small detail compared to what the patient said (IDD stated fell asleep on chair and woke up on chair, patient stated the woke up on floor)
patient attended for suture removal but no note about what looks like purse string suture?? to come out Friday
REVIEW BLOOD PRESSURE
When to remove suture
Unclear primary diagnosis.
date of discharge not recorded on the discharge letter

Patient informed GP of new lung lesion on post-discharge review. This had been omitted from discharge letter. GP contact consultant who amended discharge letter to include suspected lung cancer and MDM conclusions.
The admission and the discharge dates were not specified on the discharge letter.
The IDD outlined that the patient's PMHx included asthma and COPD - the GP practice had no record of this, and the patient is known to them. The patient has never been given these diagnoses. The practice pharmacist noticed and tried to contact both the junior doctor who completed the IDD and the ward but got no answer to her question. The consultant's secretary has been contacted and the GP pharmacist is now awaiting a return phone call from the consultant re these conditions.
Arrangements for follow up- 'follow up at NLC' presumably nurse led clinic, consider restricting use of acronyms where practical.

Project Team

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Team members involved

Name	Job Title/Specialty	Trust	Role within Project (data collection, Supervisor etc.)
Erika Hughes	Patient Safety Pharmacist	SEHSCT	Co-Project Lead, data analysis, report writing, dissemination of results, internal review
Dr Nigel Hart	GP Assistantship Lead	QUB	Co-Project Lead, data input, data analysis, report writing, dissemination of results, internal review
Dr Janet Rogers	GP Assistantship Audit Lead	QUB	Co-Project Lead, data analysis, report writing, dissemination of results, internal review
Michael Stevenson	Statistician	Not applicable	Data analysis, data cleansing

Final Year Medicine year group at QUB	GP Assistantship	QUB/Trusts	Data collectors, data input and data cleansing, dissemination of results
Robert Mercer	Regional Audit Facilitator	RQIA	Guidance through course of audit and re-audit

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