

St. John's Hospital
Limerick, Ireland

From Excel to Efficiency:

How MEG's Clinical Pharmacy
App Saved Time and Improved
Patient Care

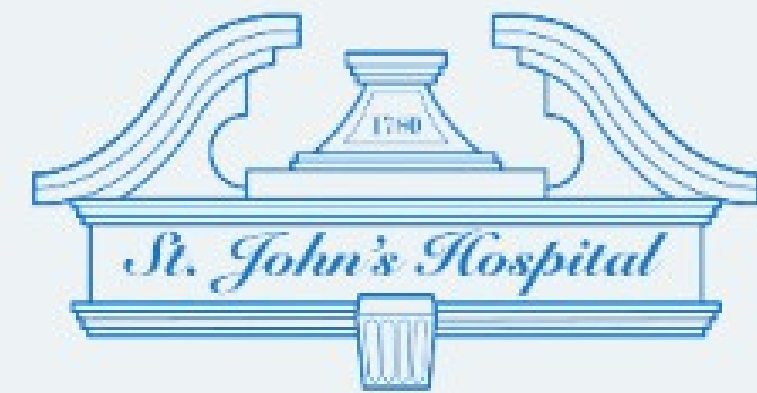


The Client

St. John's is an acute General Public Voluntary Hospital, administered and managed by a Hospital Constitution approved by the Charities Regulatory Authority. Founded in 1780 by Lady Hartstonge and other benefactors as a Fever and Lock Hospital, it treated epidemics during the Great Famine in 1845.

With a total of 99 beds, St John's Hospital has in-patient specialties like General Medicine, Clinical Recovery and Support Unit (CRSU), General Surgery, Gynaecology, Consultant out-patient clinics, a dietician service, diagnostic radiological and laboratory services and physiotherapy services. Pharmacy services include Clinical Pharmacy, a Medication Safety Programme, Antimicrobial Stewardship and a Pharmacist led Anticoagulation Clinic.

For this project, MEG worked with the Pharmacy department at St John's Hospital to build a Clinical Pharmacy Application that they could use on a day-to-day basis.



Location: Limerick, Ireland

Founded in: 1781

Number of beds: 99

Number of staff using MEG: 4

The Background

When patients are admitted to St. John's Hospital, the pharmacists work to ensure safe, optimal, and cost-effective use of medicines at admission, during the stay, and onwards after their discharge.

Not all patients have the same pharmaceutical care needs. Some patients take 10+ medicines daily and others can be on high-risk medication like blood thinners and insulin, requiring closer monitoring.

That's why pharmacists screen all patients at admission and assign them a risk score to be prioritised for Medicines Reconciliation and Clinical Pharmacist Review. And they needed a system to help them to do that efficiently.



The Challenge

Previously, once per week, the pharmacy team imported the list of patients from iPMS (the hospital's patient administration system) and printed it on a paper spreadsheet. They would then hold onto that sheet for the week, using it to assign risk scores, keep track of Medicines Reconciliation, and record Clinical Pharmacist reviews.

This system wasn't working for them for a few different reasons. For starters, as the week wore on and the pharmacists filled in the sheet, it became increasingly cluttered and difficult to read, making it easy to miss a patient or a follow-up task. It also meant that workload and patient handover from one pharmacist to another became confusing as they were unsure which patients had been reviewed when and which were due for review next.



Further, since the paper spreadsheet was shredded at the end of every week, the Chief Pharmacist had no insights or historical data to evaluate if the clinical pharmacy service was meeting Health Information and Quality Authority (HIQA) requirements on Medicines Reconciliation. This, in turn, made quality improvement and resource planning a challenge.

All in all, it was an inefficient and extremely time-consuming process. They simply needed a better system. That's when Carol Johansson, Senior Pharmacist at St. John's Hospital, who spearheaded this project, reached out to us.

THE CHALLENGES OF THE EXISTING SYSTEM

Too laborious and time-consuming



Easy to miss a patient or a follow-up task



Handover was poor and confusing



Pharmacists were unsure about patient review status



No data into the performance of the pharmacy service



The Solution

The pharmacy team needed a digital system that allowed them to input basic and clinical patient data, manage tasks, and pass on actionable information to the medical team, while also ensuring data persistence. Having worked on a similar project with another hospital, our implementation team began configuring the MEG Clinical Pharmacy Application to fit St. John's Hospital's pharmacy team's workflow and requirements.

Over the next three months, i.e., between December 2021 and February 2022, MEG worked closely with Carol to bring their vision to life.



The pharmacists definitely feel more empowered having access to actionable information that they can use to develop quality improvement plans and improve patient safety. It has made our service significantly more efficient.

Carol Johansson

Senior Pharmacist, St. John's Hospital

The MEG Clinical Pharmacy Application acts as a triaging system, allowing the hospital's pharmacists to screen patients at admission and assign them a risk score between one and five. Using the dashboard filters, they can then identify the high-risk patients and prioritise their care first. The pharmacy application also allows them to keep track of patients who have been Med Rec'd and those who haven't.

Efficient task management and improved communication between the pharmacy and the medical team was another key objective of this project. Since the hospital's environment is predominantly paper-based, with separate silos of information for patient administration, pharmacy, laboratory, etc., all patient records across departments are collated into a paper Healthcare Record, with multiple Healthcare Records for patients frequently admitted to the hospital.



Our task management feature allows Clinical Pharmacists to digitally record a task and monitor its status, i.e., open, in progress or closed. To promote collaboration with the medical team, we developed the Clinical Pharmacist Review PDF that converts generated tasks on the Clinical Pharmacy Application into a PDF document with patient details and the status of the tasks created.

It can then be printed and added to the patient's paper Healthcare Record. In the absence of electronic health records, this solution goes a long way in enhancing collaboration and bridging the gap between the pharmacy and other teams. This system also makes caseload handover from one pharmacist to another easier than ever before.

THE MEG CLINICAL PHARMACY APPLICATION HELPED PHARMACISTS...

Screen patients and assign risk scores at admission



Track which patients have been Med Rec'd and when



Digitally record, assign and monitor the status of tasks



Generate printable PDFs of tasks for the medical team



Access valuable stats and historical reporting data



To ensure the Chief Pharmacist has access to insights and historical data, we built a series of reporting dashboards within the Clinical Pharmacy Application. These include an Admissions Overview dashboard that shows the current inpatient list and other subsidiary dashboards to track patients who have been readmitted and discharged. They also have a dashboard to follow up on patients who are on blood thinners in the anticoagulation clinic and another to prioritise antimicrobial stewardship.

After configuring the system based on their requirements, in February 2022, the 9-week pilot/trial period began. At the end of April 2022, St John's Hospital officially became our customer.



Below are sample images of MEG's Clinical Pharmacy Application - similar to the one used by the pharmacy team at St. John's Hospital.

(Please note that all data displayed in the images below is taken from a MEG demo account and does not correlate to St. John's Hospital in any way)

The screenshot displays the 'Inpatients' section of the MEG Clinical Pharmacy Application. At the top left, a summary card shows 'Inpatients' with a large '79' and a date range 'From Jan. 1, 2010 to May 10, 2023'. Below this, a purple heading states 'This table shows the last 50 entries' and another purple heading says 'You can click the table for all entries'. The main part of the screenshot is a table with 12 columns: MRN, Patient Name, Consultant, Location, Bed Number, Admission Date, Date Screened and Risk Scored, Risk Score, Date of MedRec, Reviews Count, Latest Review Date, and Action. The table contains five rows of patient data.

MRN	Patient Name	Consultant	Location	Bed Number	Admission Date	Date Screened and Risk Scored	Risk Score	Date of MedRec	Reviews Count	Latest Review Date	Action
D321123	LIONEL TEST	Consultant 4	Top Floor	St Paul's 01 / JTF-R2PL-B01	2022-11-13	2022-11-14	3	2022-11-14	1	Nov. 16, 2022, 10:01 a.m.	
C321321	JOY TEST	Consultant 4	First Floor	St Joseph's 01 / JFF-R1JH-B01	2022-11-14	-	-	-	1	Nov. 17, 2022, 11:42 a.m.	
C98762	SIMON TEST	Consultant 3	First Floor	St Michael's 03 / JFF-R1ML-B03	2022-11-14	2022-11-15	2	2023-05-09	2	May 9, 2023, 10:15 a.m.	
D123456	BREDA TEST	Consultant 4	First Floor	St Patrick's 03 / JFF-R1PK-B03	2022-11-12	2022-11-14	3	2022-11-15	0	-	
D99999	JAYDEN TEST	Consultant 2	Top Floor	St Raphael's 01 / JTF-R2RL-B01	2022-11-15	2022-11-15	3	2022-11-16	1	Nov. 16, 2022, 10:15 a.m.	

Fig (1): Admissions Overview

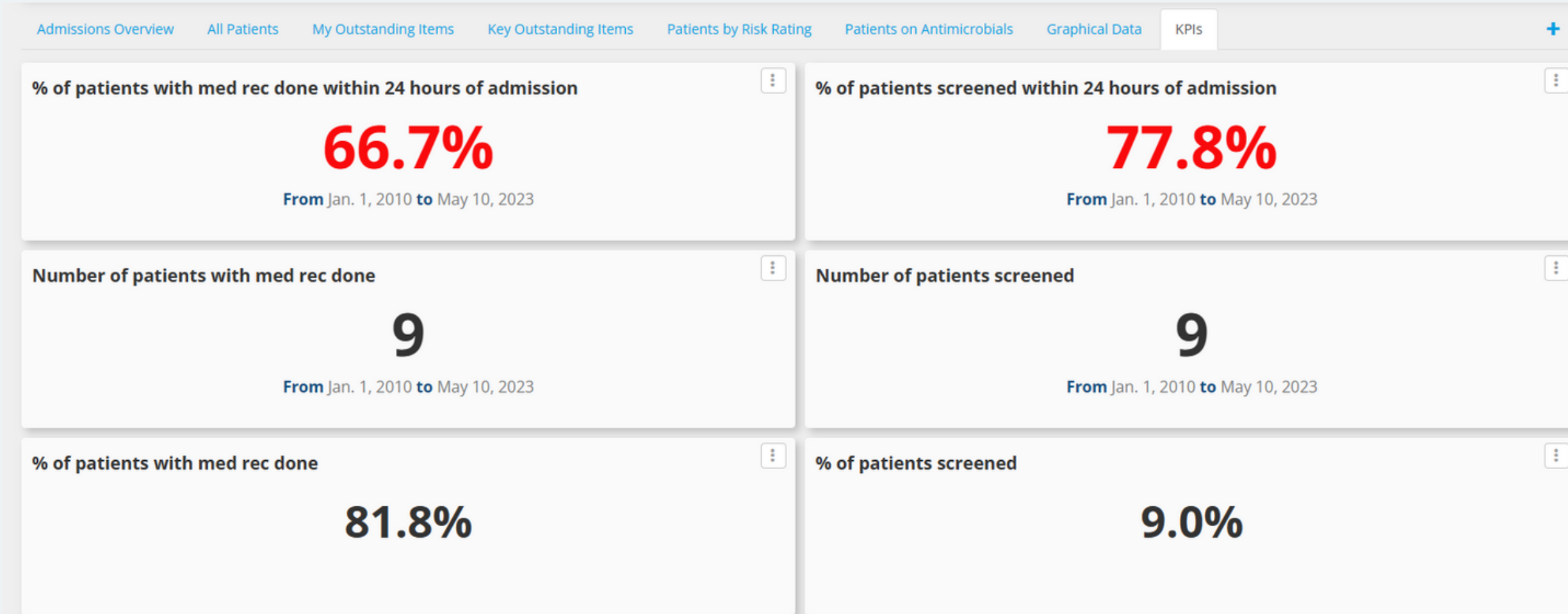


Fig (2): KPIs tracked

Admissions Overview | All Patients | My Outstanding Items | Key Outstanding Items | **Patients by Risk Rating** | Patients on Antimicrobials | Graphical Data | KPIs +

Risk Rating	Count
Current 5s	2
Current 3s	5
Current 2s	2
Current 1s	0

Current Inpatients with Risk Score 5 2 entries				
MRN	Patient Name	Bed Number	Location	Action
C123456	JOSEPH TEST	Room 01 / JFF-R1R1-B01	First Floor	🔗
TEST781	Larry David 4	St Cecilia's 02 / JGF-R0CS-B02	Ground Floor	🔗

Current Inpatients with Risk Score 3 5 entries				
MRN	Patient Name	Bed Number	Location	Action
D321123	LIONEL TEST	St Paul's 01 / JTF-R2PL-B01	Top Floor	🔗
D123456	BREDA TEST	St Patrick's 03 / JFF-R1PK-B03	First Floor	🔗
D99999	JAYDEN TEST	St Raphael's 01 / JTF-R2RL-B01	Top Floor	🔗
C99999	MARY TEST	St Brendan's 01 / JCF-R0RN-R01	Ground Floor	🔗

Fig (3): Patients filtered out by Risk Rating for easy prioritisation

Admissions Overview All Patients My Outstanding Items **Key Outstanding Items** Patients by Risk Rating Patients on Antimicrobials Graphical Data KPIs +

No Screening Complete

91 entries

MRN	↑↓ Patient Name	Bed Number	Location	Action
M1254446	John Smith	New	-	
M123456	John Smith	New	-	
M123456	John Smith	New	-	
C321321	JOY TEST	St Joseph's 01 / JFF-R1JH-B01	First Floor	

No Med Rec Complete

2 entries

MRN	Patient Name	Bed Number	Location	Action
TEST785	Harry Hope 8	St Philip's 01 / JTF-R2PP-B01	Top Floor	
TEST781	Larry David 4	St Cecilia's 02 / JGF-R0CS-B02	Ground Floor	

Fig (4): Key Outstanding Items



MEG is just a really easy and safe system to use. I like coming into work knowing exactly what my priorities are for the day and which patients I need to follow up on. MEG's system lays all that information out for me. It reduces a lot of mental load.

Carol Johansson

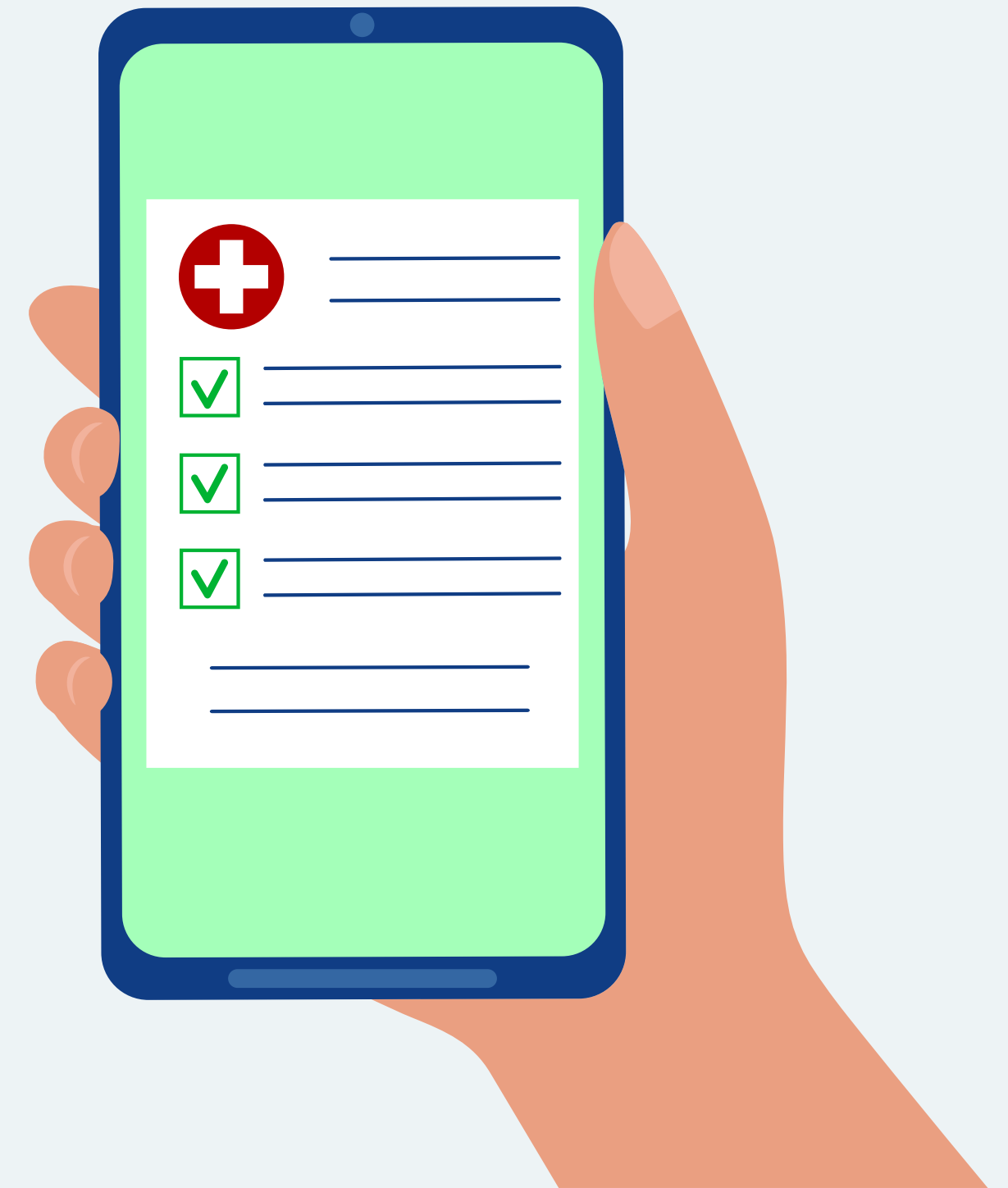
Senior Pharmacist, St. John's Hospital



The Result

Over the last year, MEG's Clinical Pharmacy Application has saved the pharmacy team at St. John's Hospital dozens of hours that they otherwise would have spent transcribing data from Excel onto paper sheets. Pharmacists now use the extra time for more patient counselling on new medicines, translating to more patient empowerment.

Having a central database to assign risk scores and track Medicines Reconciliation and Clinical Pharmacist reviews for patients has made the workplace more efficient. The breakdown of patients according to the risk score gives a clearer idea of the current caseload and is used to better distribute work among the team. Further, handover has become safer, with clear, legible information persisting week to week. All this, in turn, has improved the quality of pharmaceutical care and patient safety.




The team uses the data collected from the task management system to evaluate which task categories require frequent interventions. Based on that information, they are able to identify areas for improvement, collaborate with the multidisciplinary team, and develop quality improvement programs, further contributing to patient safety.

The reporting dashboards provide valuable statistics that did not exist previously. The quantitative outputs of the system allow them to monitor the efficacy of the clinical pharmacy service. Management now has a clear picture of the number of tasks performed, patients visited, frequency of Medicines Reconciliation, and more.


The Chief Pharmacist can also extract quarterly reports and make them available to hospital management and to regulatory authorities like HIQA when needed. In fact, during the trial period, the hospital had an unexpected inspection from HIQA, who were quite impressed when the team could give them comprehensive reporting statistics, even if it were for a short time span.




Here's what the pharmacy team at St. John's Hospital had to say about the new system:




"When you're meeting with other healthcare professionals and you can bring up patient information really quickly, you feel empowered!"



"It has freed up a huge amount of my time that was spent transcribing information from paper sheets."



"I find the efficacy is better - the capturing of all patients and making sure that no patient is missed."



"The stats on pharmacists interventions helped us identify gaps in medication safety. I am absolutely thrilled by it"

**Want a similar solution to support your
Clinical Pharmacists?**

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