



Quality improvement project to reduce  
the delays in medication administration  
and improve communication in the  
committal process in Maghaberry Prison

August 2019

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## **Executive summary**

The committal process, when people enter into Her Majesty's Prison (HMP) Maghaberry has been criticised as being chaotic and unsafe in multiple prison inspection reports, and has been highlighted as an area for improvement in quality, safety and experience by the South Eastern Health and Social Care Trust (SEHSCT) and Northern Ireland Prison Service (NIPS), (Her Majesty's Inspectorate of Prisons (HMIP) and Regulation and Quality Improvement Authority (RQIA), 2017)<sup>1</sup>.

The committal process is a complex system involving many organisations including the Police Service of Northern Ireland, Barnardo's and Belfast Metropolitan College, with differing operations and cultures, leading to an unstable prescribing pathway with marked variations and resulting in 30% of first dose medicines being omitted (Appendix 1)

The aim of introducing Pharmacist Independent Prescribers (PIPs) was to reduce the percentage of omitted first doses of medicines as highlighted in previous reports. A secondary aim was to improve communication and information transfer between the healthcare team and people entering custody.

The prescribing pathway involves patient information being transferred from Policy custody records, via the prison escort service to the committal team of primary care nurses. This information arrives with the patient at the time of committal, late in the afternoon, when the escort vans arrive in the prison. The committal interviews occur when the prison health team including medics and pharmacy staff have gone home. The prescribing pathway was complex with delayed prescribing and administration of medication. A transformation project was conducted to improve the whole committal pathway (Appendix 1). This pilot is a strand of the work, focusing on enhancing the medication prescription pathway.

PIPs were recruited to support the committal process by conducting medicines reconciliation, preparing for medicine administration and providing medication advice for people in custody.

The project methodology followed improvement science to test and apply changes to the prescribing pathway. This was a collaborative approach with project design involving prison and health care staff and people in custody.

Improvement initiatives applied Lean Thinking to reduce waste and smooth process flow, resulting in the level of first dose omitted medicines being reduced to 10%, and an increase in the quality and safety of prescribing through front facing consultations with the PIPs.

Systematic change has occurred with project quality control measures being incorporated into NIPS and SEHSCT joint strategic outcome measures through the use of 10,000 voices survey<sup>16</sup> and prescribing performance data.

## **Background**

People in custody have a high prevalence of disease, co-morbidity and polypharmacy. Studies report that people in custody are heavy users of healthcare, opportunistically seeking treatment whilst incarcerated (Fazel & Baillargeon (2010))<sup>2</sup>. This can result in long waiting lists and pressure on prison healthcare services. Due to the high turnover of the

prison population and high rates of re-offending, prisons present a complex challenge for Public Health. (World Health Organisation) (WHO) 2013)<sup>3</sup>. By addressing the health needs of the prison population, the impact on the wider community can help to address health inequalities Public Health England (PHE) 2018<sup>4</sup>. The reduction in health inequalities has been highlighted as a Health and Social Care (HSC) priority (DoH 2017)<sup>5</sup>. WHO Offender Health Guidelines emphasise the importance of good healthcare pathways for people entering custody (WHO 2014)<sup>6</sup>.

The committal process is the gateway to a person entering custody receiving medical and psychological support whilst in prison. It is a complex process involving many organisations with differing operational aims, processes and cultures. Since 2008, the SEHSCT is responsible for providing healthcare to all people individuals in custody.

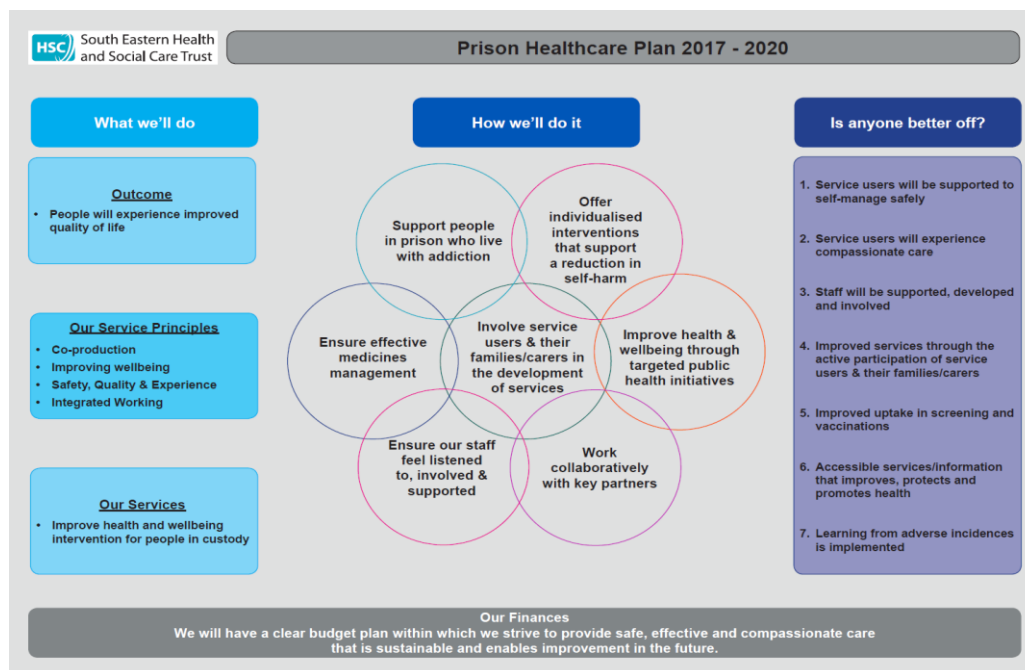
In recognition of the need for improvement in prison healthcare, SEHSCT established a Service Improvement Reform Project in October 2014. This Reform Project was initiated to drive the cultural change required to improve health outcomes, embed improvement methodology and develop the workforce. Work streams were developed and implemented with significant support from wider trust corporate services and are now focused on three key areas: Patient Safety, Workforce and Quality Improvement. A Whole Prison Approach to the delivery of healthcare has been adopted. There has been much improvement in the prison healthcare, with better outcomes in service delivery and patient experience being recognised in recent RQIA inspection (RQIA 2017)<sup>1</sup>.

The committal process has been scrutinised in the past by RQIA Inspection Reports, Prison Ombudsman and Coroner's reports. The Prison Reform Programme reflected an urgency for change following criticism and recommendations from the Prison Review Team's Report (Owers 2011)<sup>7</sup>. This led to an initial review of the committal process in 2014 within SEHSCT, highlighting areas for change. This review was instrumental in highlighting to the SEHSCT the need for the committal process to be a Directorate priority and an area for Quality Improvement. The most recent Inspection Report (RQIA, 2017)<sup>1</sup> recommended that Prisoners receive community-equivalent, person-centred medicines optimisation, during the initial reception screening and that a full medicines reconciliation is completed within 72 hours of admission (Expectation Statement 63).

The current committal process is not focused on quality outcomes. It has limited performance indicators, which are retrospective, quarterly and focus on process not outcomes. Data systems are integral to operational quality control. Improving prison healthcare needs a robust performance measurement system. For prisons that have under developed performance tracking a phased adoption of the process and outcome measurement indicators, would be recommended (Asch et al 2011)<sup>8</sup>.

An overarching Transformation Project has commenced to assess the standard of the committal process with the aim of providing a welcome to people arriving into custody. The Strategic Direction for Health Services in the Justice System (NHS 2016)<sup>9</sup> argues those who have offended must not be excluded from the rights and benefits of active citizenship. By involving service users in prison service design, it has been shown that services are more credible and effective for prisoners (Rex 1999)<sup>10</sup>. Involving people in custody in improvement initiatives leads to greater mutual respect, improved communication and overall function of prison health services (Marshall, Simpson & Stevens (2001)<sup>11</sup>.

The rationale for this Transformation Project is to respond to and co-produce the priorities set by the service users, in accordance with the SEHSCT Prison Healthcare Plan 2017-2020<sup>12</sup> (below).



## Aims

The aim of this project was to improve the flow of medication for people entering custody. To reduce delays in the prescribing pathway, with the outcome of reducing the omitted first medication dose by 30%. A secondary aim was to improve communication during the committal process by utilising a coproduction approach to service improvement.

The objectives of the pilot were:

1. The medication pathway was to be streamlined, to improve the timeliness and quality of medication administration.
2. To incorporate operational process measures into prescribing pathway, including real time performance data analysis.
3. To improve communication during the committal process by use of co-production approach with service users and prison staff.
4. To improve people in custody's engagement in their own healthcare decisions.

## Methodology

Quality Improvement science methodology was used in the transformation project. A driver diagram was developed to focus on the whole transformation project with specific change initiatives. Primary drivers for improvement were to prioritise patient well-being, communication and systems and pathways, by reducing variation and smooth the workflow.

The improvement initiative focused on the driver diagram outcomes, listening to people in custody, and on giving people access to information about healthcare services and living well whilst in prison.

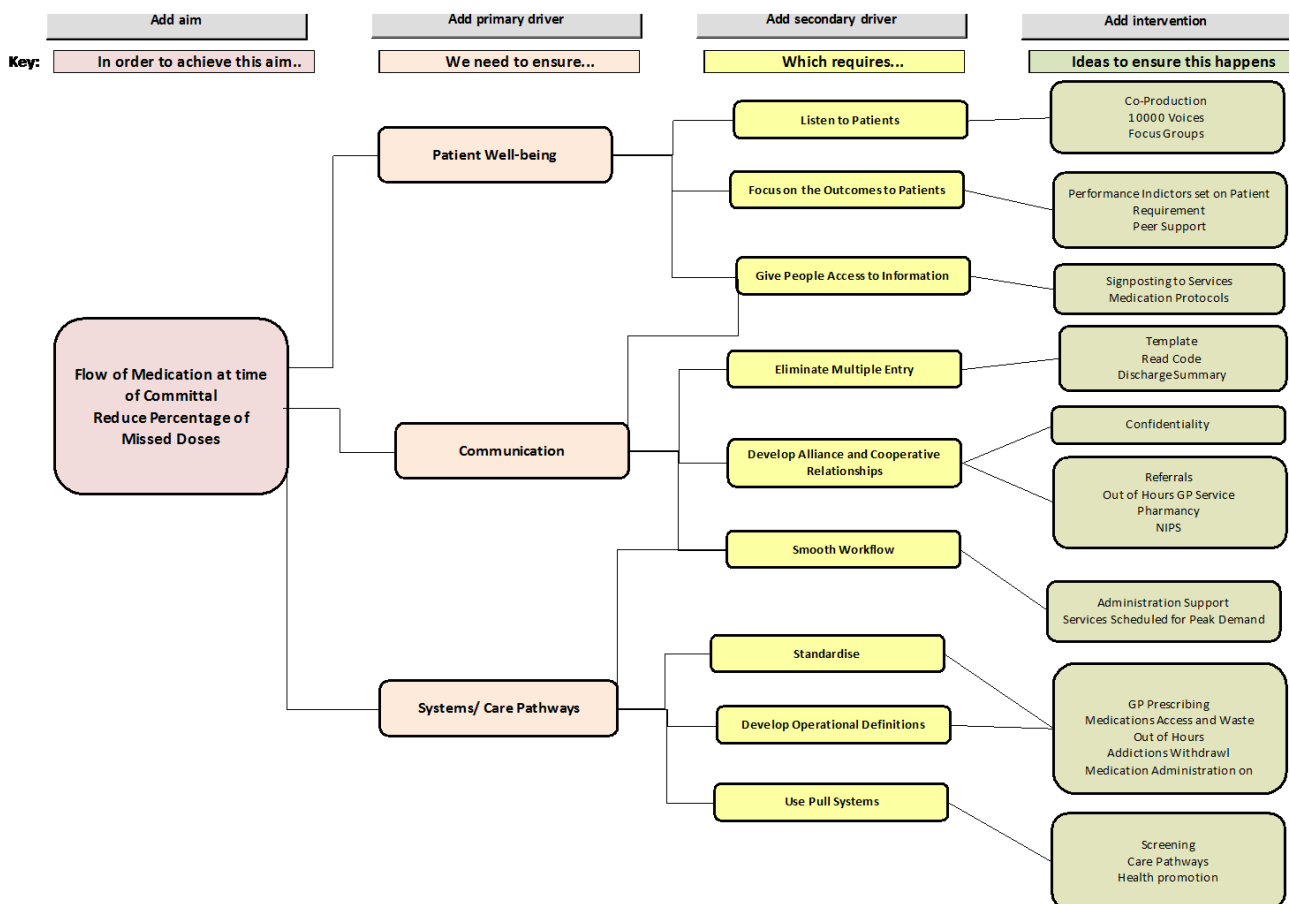
The methodology for the Transformation Project used the IHI Model for Improvement (Langley et al 2009)<sup>13</sup>, using Plan Do Study Act (PDSA) cycles to focus the change ideas for improvement and to measure the impact the change made. These changes were made incrementally with process, balancing and outcome measures used to measure change. These cycles are linked to three key questions:

- 'What are we trying to accomplish?'
- 'How will we know that a change is an improvement?'
- 'What changes can we make that will result in improvement?'

(Langley et al 2009)<sup>13</sup>

Baseline measures (identified in page 8 of report) were introduced into the pathway to enable data analysis and performance measurement. Analysis of the impact of the change was made, using the Tools for Improvement, focusing on analysis demand patterns, improvement changes using run charts and explore special cause variation in the process using Statistical Process Control.

### Driver diagram for committal process



## **The transformation project had two strands**

1. Communication Innovation and Co-production
2. The Prescribing Pathway

## **Communication protocols**

Initial change initiatives were to prioritise important messages about medication, well-being and healthcare at the right time, and at the right place. It was a collaborative process between SEHSCT, NIPS and people in custody intending to co-produce communication protocols with the aims of improving the flow of information, resulting in increasing the quality of care given and managing the expectations as people enter custody.

This should improve the patient experience of the healthcare service, reducing dissatisfaction, complaints and litigation against prison healthcare. Outcome measures were developed from the baseline data of the 10000 Voices Survey<sup>15</sup> this was repeated as the pilot project continued.

## **Medication pathway**

Change initiatives in the prescribing pathway planned were:

- Improvement in the internal prescribing pathway used by the SEHSCT team.
- Reducing non-value added activities.
- Reduction in time taken from the initial medication request to administration.
- Reduction in the omission of first dose medication by 30%.
- To introduce a protocol for a PIP, to be integrated with the committal team, to complete medicines reconciliation, reduce errors and improve the safety of the service provided

## **Pharmacist independent prescriber (PIP) Post**

Three pharmacists were recruited to undertake the pilot for six months between November 2018 and March 2019. The three pharmacists attended the NIPS induction session and training delivered by the SEHSCT healthcare team focusing on prescribing systems, record keeping and the prison systems. This induction training took three months to complete in order to fulfil the SEHSCT governance and NIPS security requirements. The PIPs were to be recruited for a pilot during which they would be co-located with the committal team. The PIP would have the role of prescribing during the committal process, in order to enhance the skill mix and improve the prescribing pathway. The National Partnership Agreement, between PHE, NHS England and National Offender Management Service has identified the need for the development of new models of care in prison health, using an innovative skill mix of practitioners including nurse prescribers and pharmacists (NHS England 2016)<sup>9</sup>.

NICE Guidelines, Physical Health of People in Prison (NG57 2016)<sup>14</sup> calls for improvement of health and wellbeing in the prison population by promoting more coordinated and effective approaches to prescribing, dispensing and supervising medicines. Research evidence reveals marked variation in the appropriate prescribing and adherence of medication, resulting in waste and pressures to the health service and poor health outcomes for patients (Timoney and Harrison 2016)<sup>15</sup>.

## Measures

At the time of the pilot of the prescribing pathway there was data collected from the prescribing records; but little analysis for operational control was conducted. There were no performance indicators measuring real time data. It was intended that operational measures i.e. timeliness would be embedded into the prescribing process.

Process measures:

- Increased number of medications prescribed at time of committal

Balancing measures:

- Length of time people spend in reception.
- Reduced number of calls to out of hours General Practitioner (GP) service.

Outcome measures:

- Reduction by 30% of omitted first doses of medication.
- Enhanced information transfer at time of committal.
- People in custody feel involved in their healthcare decisions (10,000 voices).
- Staff feel more supported (focus groups for staff).

## Project

The pre-pilot phase involved two steps:

### 1. Pharmacist Independent Prescriber (PIP) Role

The Pharmacy lead attended GP Federation meetings with practice prescribing pharmacists describing the project, information was also circulated throughout SEHSCT.

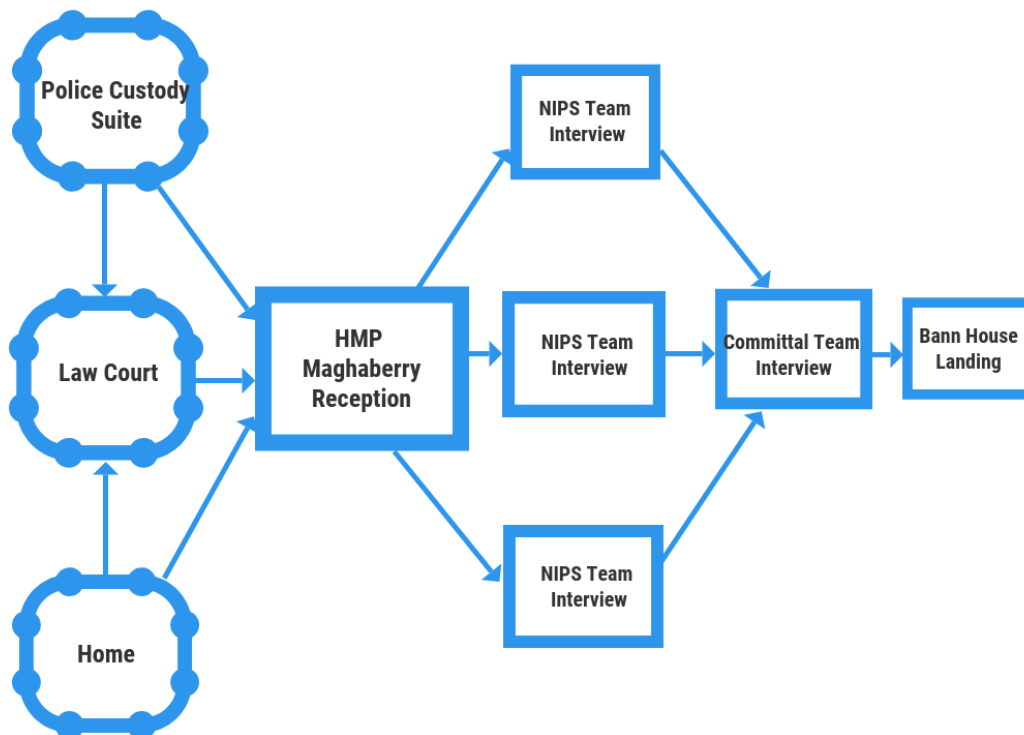
A number of pharmacists were interested in the pilot and three pharmacists were recruited to run the pilot for a period of six months. The pharmacists underwent the recruitment process in SEHSCT and the prescribing governance arrangements were formulated for the pilot. The three pharmacists attended the NIPS induction session and training by the SEHSCT healthcare team, focusing on prescribing systems, record keeping and the prison systems. This recruitment period took three months to satisfy SEHSCT governance and NIPS security regulations.

### 2. Understanding the System

The committal process begins when people are taken from court or police custody and brought into the reception of the prison. Here they are interviewed by prison officers followed by a consultation with the committal nursing team. Once the committal process is completed, each person is taken to Bann House, the committal residential landings (Figure 1).



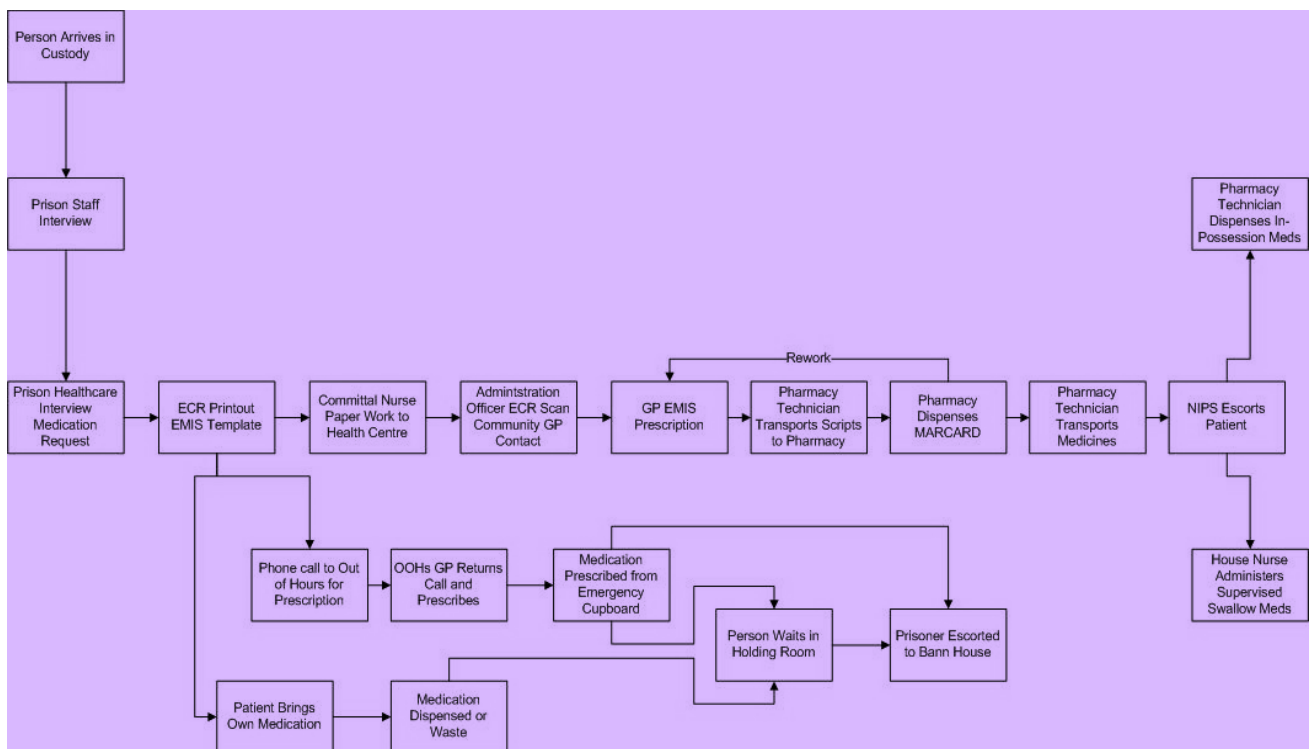
**Figure 1: System map of the committal process in HMP Maghaberry**



### **Process map for committal pathway**

The committal pathway is reported as being a complex inter-agency process, which inspections have deemed being deficient in efficiency, quality and safety (RQIA 2017)<sup>1</sup>. To make improvements it was important to first understand the prescribing pathway. Using observations and interview data a process map was constructed showing the internal inputs, processes and pathways for the project. The process mapping involved a week of observing people entering Maghaberry and following the flow of the documentation involved in each medicine request. Each task was noted and the interface between tasks recorded involving batching and flow of units. The initial data from the process map was augmented through a series of interviews with key stakeholders healthcare managers, NIPS and healthcare staff involved in the prescribing pathway. The process map was contained to when a person entered Maghaberry and healthcare became involved in the person's care, (Figure 2). Flow data was not systematically collated in prison healthcare.

**Figure 2: Process map of the committal process including medication requests**



The process map revealed an extensive system involving many tasks, with different inputs and outcomes. The medication request was dependent on the committal nurse deciding if the medication should be administered that evening and if determined as being required then involved contact with the Out of Hours (OoHs) Medical Service for a prescription. The medication may then be administered in the reception area from the emergency cupboard if stock is available or handed over to the nursing night shift to be administered in Bann House. Using OoHs Medical Service created significant delays in the process, waiting for GPs to ring back and at times arranging taxis to bring medication to the prison from a local community pharmacy. The main flow of medicine requests involved the person's documentation being batched overnight waiting for the healthcare team to continue the pathway the following day, resulting in further delays in obtaining and prescribing medicines. The delay in medicines administration was reported as a problem for people entering custody in a previous 10000 Voices survey<sup>16</sup>, with increased anxiety, sleeplessness and frustration leading to incidents in the first days in custody (SEHSCT 2018)<sup>16</sup>.

### 3. Staff Interviews

Healthcare and prison staff were interviewed to help inform the PIP Pilot project.

#### 3.1. Prison Healthcare Manager Interview

Interviews highlighted the pressure staff felt, reporting that the system was not working and had been heavily criticised by inspection and ombudsman reports. Management interviews focused on new partnership and joint working between NIPS and SEHSCT, with joint strategies being produced for Self-harm and Substance Misuse in prison (SEHSCT 2017)<sup>17</sup>.

The SEHSCT aim of improving quality, safety and patient experience were cited as being foundational to the Transformation Project (Appendix 1).

### 3.2. NIPS Staff Interviews (three staff)

Interviews with the Governor of Bann and landing officers highlighted that arrival into custody is a time of high tension, with many people withdrawing from substances and experiencing anxiety due to their new circumstances. The interviews indicated that many people have difficulty sleeping on their first night in custody and there are many disruptions during the first few days. Incidents on the landing are related to delays in medication, difficulty with legal decisions and the prison regime, inability to contact family, withdrawal from substances and personal disagreements.

### 3.3. Committal Team Interview

The committal team comprises of four primary care nurses, three of these nurses were interviewed. The committal team talked of the difficulty of people arriving into prison late afternoon when the prison healthcare team was leaving, with GP and pharmacy services closing at 5pm. Adding to the information complexity, substance misuse teams are closed at 5pm, resulting in frequent phone calls to the OoHs Medical Service. The team reflected on the isolation of working in this timeframe, and the practical difficulty of information sharing resulting in reduced service timeliness and reduced quality of care.

The committal team were keen for positive transformation of the process to occur in order to provide a more supportive consultation.

### **Quality improvement steering group**

An inter-organisational team of people joined the Quality Improvement (QI) steering group, which met monthly to analyse the baseline process data and devise a vision and plan for the committal process (Table 1).

**Table 1: QI steering group participants**

Operational Nurse Manager
Committal Nurse
Prison Pharmacy Lead
Pharmacist
Administration Officer
Prison Medical Director
Peer Mentor Representative
NIPS Committal Officer
Quality Improvement Lead (Chair)

Using Quality Improvement methodology of PDSA small step changes, the QI team planned a number of incremental changes to the prescribing pathway processes. The change initiatives were conducted in PDSA cycles over a period of 20 weeks, (November 2008 to March 2019) each initiative was tested, analysed and adapted before introducing the next improvement concept. The change initiatives are detailed in this section in chronological order.

## **Develop the relationship between the committal nursing and pharmacy teams.**

As an improvement cycle the QI team altered the prescribing pathway to introduce medicines reconciliation by the pharmacy team. The QI team developed and disseminated a prescribing protocol for the PIPs to use when working in the committal team. This pathway re-design was intended to be an iterative process adapted throughout the pilot. The operational lead pharmacist spent time training the PIPs in the prescribing systems and then the pharmacists spent time observing the committal process. The PIPs then worked in pairs when undertaking their initial prescribing sessions.

## **Out of hour's cupboard**

The impact of medications being prescribed by the PIPs led to the committal team working closely with pharmacy to enhance the out of hour's medication cupboard stock. Reviewing the most frequently requested medications and agreeing an enhanced stock with the prison pharmacy. This reduced the number of first dose medications omitted left until the next morning to be administered.

## **Introduction of prescribing metrics to template**

Development and testing of real time measures in the committal template to collate the number of medications being administered in reception and by evening medications by the night staff. This aimed to enable data to be captured during the prescribing process in real time.

## **PIP starting earlier in the day**

Observing the flow of the process it was recognised that the staggered start to the committal process with the pharmacists arriving at 5.30pm was causing batching within the prescribing process due to individuals having been seen by the nursing team and sent to Bann House.

Timings were altered and the then PIPs began work earlier in the session which improved the efficiency of the pathway and enabled conversations with community GPs to take place when necessary.

## **PIP prescribing process**

The pharmacy team worked with the NIPS officers and the committal team to amend the prescribing pathway to improve the flow. The pharmacist completed an initial medicines reconciliation by checking the medical notes from the Forensic Medical Officer in police custody, cross referencing the prescribing records on Electronic Care Record (ECR) and Electronic Management Information System (EMIS) and discussing the patient's requirements with the nursing team. The pharmacist then prescribed the medication, and prepared the kardex for the nursing team. The committal team then completed the committal process with the aim of administering medication in reception or preparing medication for night staff as appropriate.

## PIP service user facing role

The PIP developed a role in the committal team to explain medications to people as they entered custody. Leaning on best practice evidence of medication reconciliation in other settings the PIPs (Timoney and Harrison 2016)<sup>15</sup> expanded their service to include patient consultation when needed. The PIP and nursing team prioritised people for PIP consultation and support.

## Results

Increased number of medications prescribed at time of committal

The PIPs commenced on 19 November 2018 with observation and understanding of the committal process. They started prescribing in December 2018. It was during this time that a systematic monitoring system should be designed to evaluate the prescribing process; a template was designed by the prison healthcare IT officer and tested by the nursing team. The template enables the nursing team to record when medications are prescribed and when the medications are administered in reception or by the night staff. This was an iterative process, once consensus was agreed the template was embedded into the committal process template and enables evaluation of the weekly prescribing data.

The PIPs prescribed all medications at the time of committal unless there was a complication of intoxication or patient concern. This was an improvement from the previous practice where medication reconciliation was only conducted on the morning following the committal interview (Table 2).

**Table 2: Number of medications prescribed**

Reporting Period	Committals	Patients not on Prescribed Medication	Patients Prescribed Medication
1st to 10th Jan 19	84	22	62
11th to 20th Jan 19	85	42	43
21st to 27th Jan 19	76	36	40
28th Jan to 3rd Feb 19	69	28	41
4th to 10th Feb 19	75	32	43
11th to 17th Feb 19	62	34	28
19th to 24th Feb 19	55	19	36
25th Feb to 3rd Mar 19	52	27	25
4th Mar to 10th Mar 19	64	22	42
11th Mar to 17th Mar 19	61	24	37

## Reduction in out of hours calls

One of the objectives of utilising a PIP within the prescribing pathway was to reduce the number of phone calls made to the OoHs Medical Service.

The committal team had previously reported the time delay associated with contacting the OoHs Medical Service and the variation in the prescribing arrangement provided by

different practitioners. It was recognised as being a barrier to service users receiving medication on time.

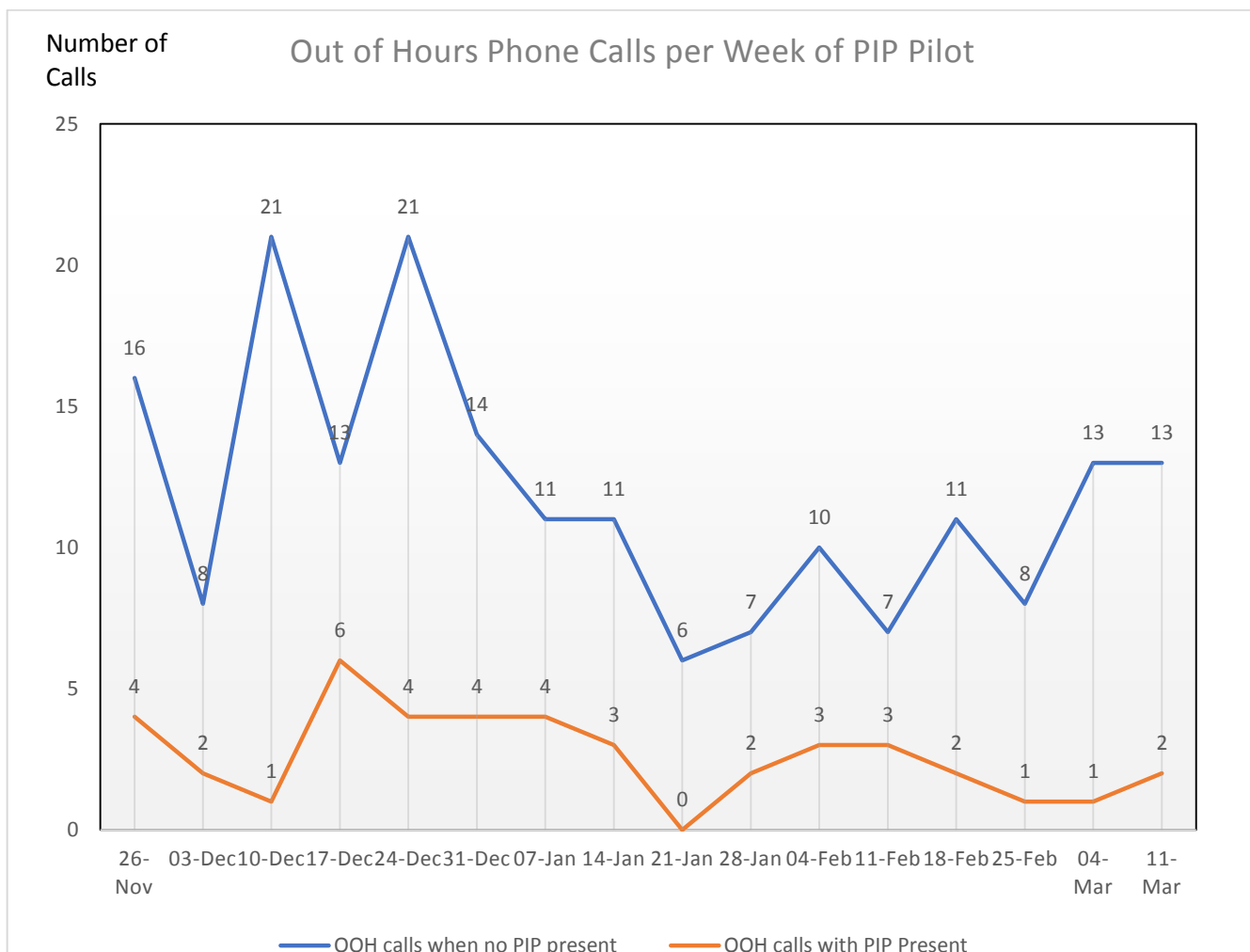
The OoHs Medical Service records all the calls made from Maghaberry, not all these calls are from the committal team but the majority are related to people entering custody.

The number of calls reduced immediately when the PIPs were employed with a small number of calls being made by the pharmacist with regards to chlordiazepoxide or opioid substitution therapy. The PIPs worked three sessions a week, Monday, Thursday and Friday 5-9pm. The data presented shows the variation of the number of calls made weekly on the days the pharmacist was present and when they were absent. This data focuses on when the PIP was in place but uses the sessions when the PIPs were not there Tuesday, Wednesday, Saturday and Sunday as control for the number of calls made to OoHs (Table 3, Figure 3).

**Table 3: Number of calls made to the out of hours service.**

Week Beginning	OoH calls when no PIP present	OoH calls with PIP Present
26-Nov 18	16	4
03-Dec 18	8	2
10-Dec 18	21	1
17-Dec 18	13	6
24-Dec 18	21	4
31-Dec 18	14	4
07-Jan 19	11	4
14-Jan 19	11	3
21-Jan 19	6	0
28-Jan 19	7	2
04-Feb 19	10	3
11-Feb 19	7	3
18-Feb 19	11	2
25-Feb 19	8	1
04-Mar 19	13	1
11-Mar 19	13	2

**Figure 3: Number of calls made to the out of hours service.**



### Length of time people spent in reception

A process measure of the project was the time people spent in reception. At the start of the pilot there was concern that by introducing the PIP the healthcare committal consultation would be extended and there would be further delays introduced into the committal pathway.

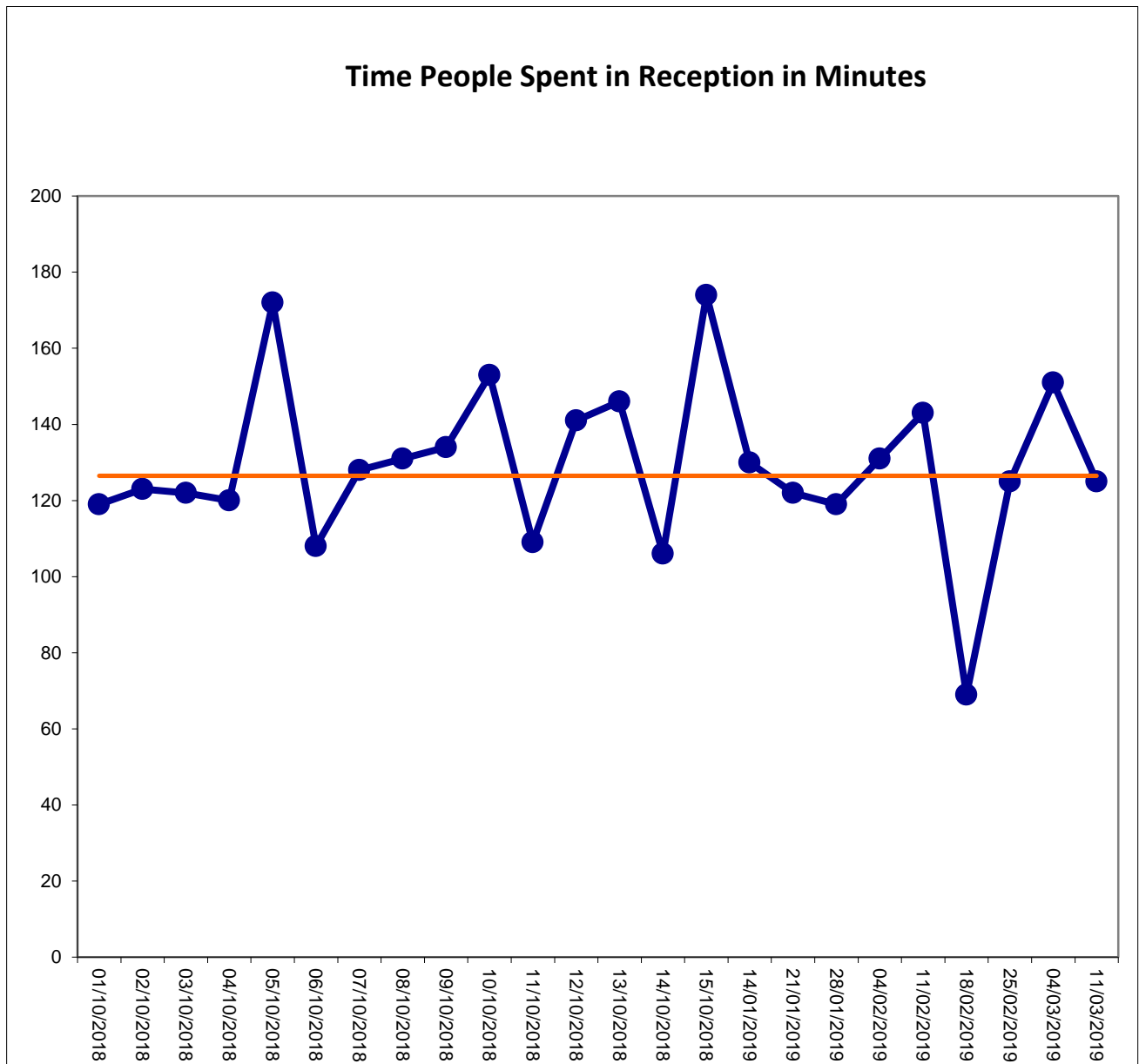
The introduction of the PIP, 26 November 2018, into the committal team did not significantly alter the length of time people spent in the reception, averaging at 130 minutes. The run chart reveals that there is no shift in the time spent in reception (Table 4, Figure 4).

**Table 4: Average time spent in reception. (PIP being introduced week beginning 26 November 2018)**

Date	Number of people new in custody after 5pm	Average time in reception in minutes
01/10/2018	14	119
08/10/2018	11	123
15/10/2018	5	122
22/10/2018	12	120
29/10/2018	5	172
05/11/2018	11	108
12/11/2018	2	128
19/11/2018	5	131
26/11/2018	10	134
03/12/2018	9	153
10/12/2018	10	109
17/12/2018	9	141
24/12/2018	1	146
31/12/2018	4	106
07/01/2019	10	174
14/01/2019	7	130
21/01/2019	11	122
28/01/2019	5	119
04/02/2019	9	131
11/02/2019	7	143
18/02/2019	2	69
25/02/2019	7	125
04/03/2019	9	151
11/03/2019	6	125



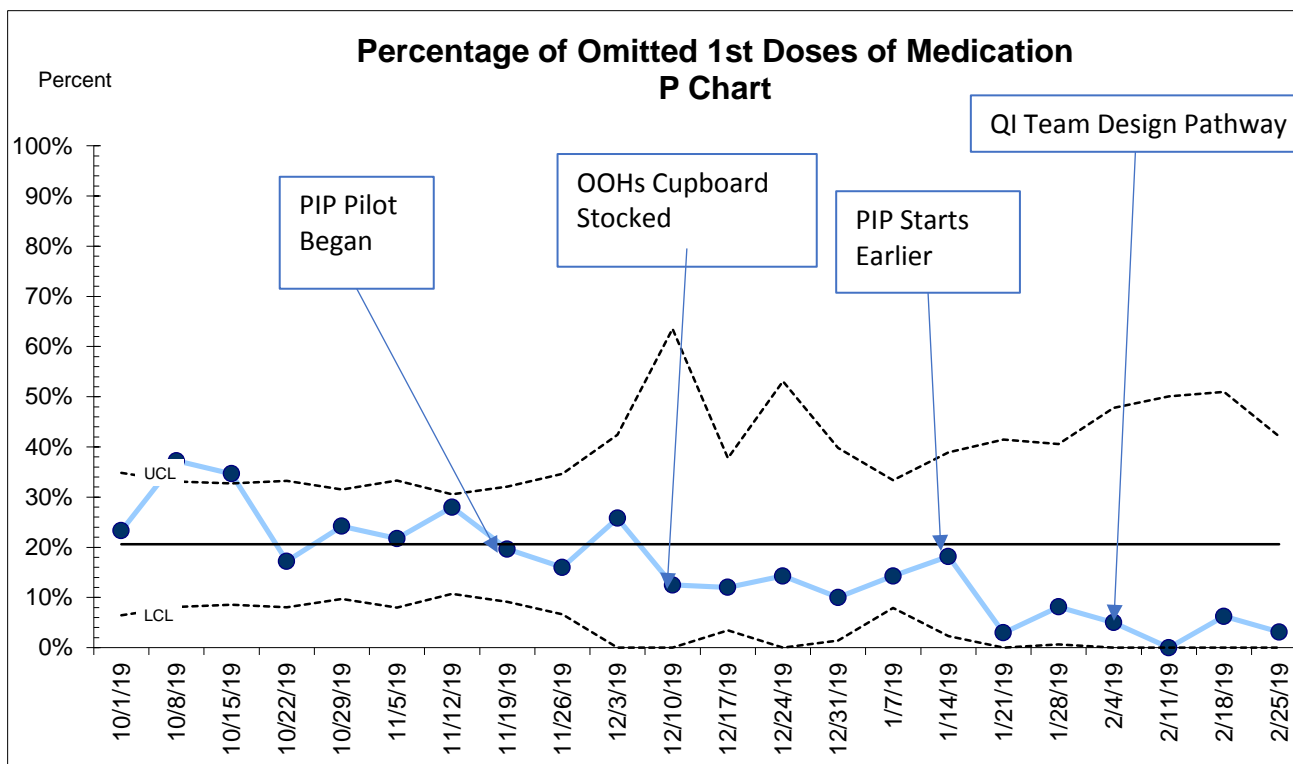
**Figure 4: Average time spent in reception. (PIP being introduced week beginning 26 November 2018)**



**Reduced number of omitted first dose medication**

The aim of the project was to reduce the number of omitted first dose of medication by 30%. By introducing the PIP to the committal team and using Quality Improvement methodology, various PDSA cycles were commenced with 35% of first dose medications being omitted reducing to below 10% of medications. Prescribed omissions and their reasons were noted by the PIPs for example such as the service user had taken other substances before entering prison, discrepancies identified with the ECR record and individuals from outside Northern Ireland for whom an ECR record was not available (Figure 5).

**Figure 5: Percentage of omitted first dose of medication**



**Medication administration**

The administration of medication was conducted by the nursing team, the number of medications administered in reception was low with most of the medication documentation prepared for the night staff to administer the medication. The night staff would start their medication rounds at 8pm; if the committal team was not finished their work, they would provide a handover over the phone and the night staff would complete their medication round and then return with the new medication to Bann House. This part of the pathway was beyond the remit of the PIP pilot but should be addressed in the next phase of improvement (Table 5).

**Table 5: Medication administration**

Reporting period	Committals	Medication given at reception	Prescribed omission	Night medication arranged
1-10 Jan 2019	84	9	1	12
11-20 Jan 2019	85	2	1	9
21-27 Jan 2019	76	6	2	17
28 Jan – 3 Feb 2019	69	8	0	12
4-10 Feb 2019	75	2	3	16
11-17 Feb 2019	62	4	0	12
19-24 Feb 2019	55	5	0	18
25 Feb - 3 Mar 2019	52	7	1	13
4 - 10 Mar 2019	64	4	2	22
11 - 17 Mar 2019	61	5	0	20

**Enhanced information transfer at the time of committal**

The PIPs during the pilot developed an enhanced role working alongside the committal team. If there were discrepancies identified in the medication request or service users had queries in relation to medication the PIP would join the committal nurse to consult with the patient.

Following a team meeting to review the pathway on the 11 January 2019, the role of the PIP was enhanced to have a service user facing function. This resulted in an over 60% increase in the number of the patient consultations in the prescribing pathway.

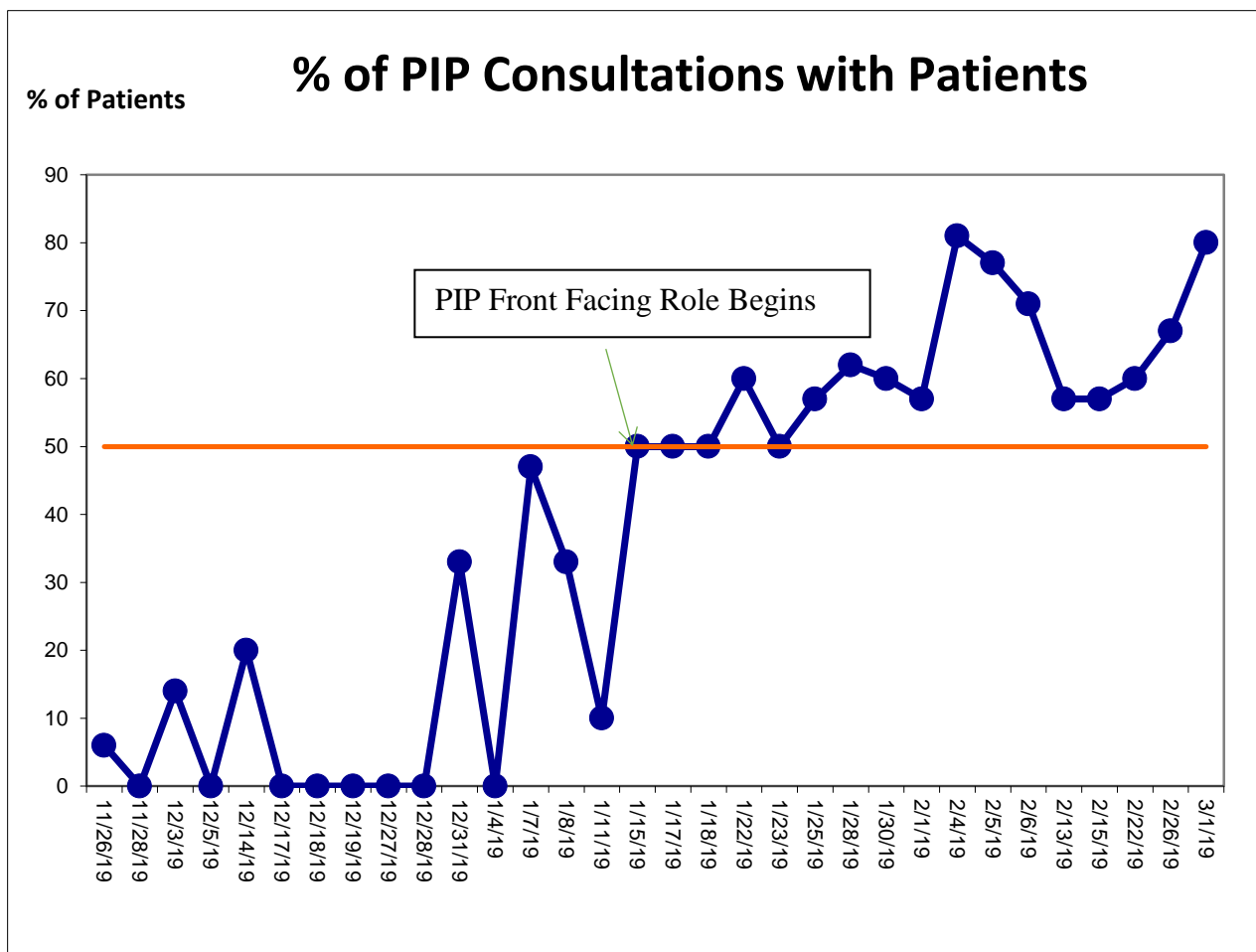
**PIP consultations**

The 10000 Voices Survey (SEHSCT 2018)<sup>16</sup> for people entering HMP Maghaberry revealed the frustration of people when medications were delayed, omitted, reduced or switched and the impact this had on the person's well-being, mood and sleep. Since introducing a PIP, with an enhanced service user facing role, to listen and consult with patients there has been an improvement in communication. The enhanced role resulted in an increase in the number of people having the opportunity to discuss medications with a pharmacist (Table 6, Figure 6).

**Table 6: Number of PIP consultations with people entering custody**

<b>Date</b>	<b>Percentage of conversations</b>
26/11/2019	6
28/11/2019	0
03/12/2019	14
05/12/2019	0
14/12/2019	20
17/12/2019	0
18/12/2019	0
19/12/2019	0
27/12/2019	0
28/12/2019	0
31/12/2019	33
04/01/2019	0
07/01/2019	47
08/01/2019	33
11/01/2019	10
15/01/2019	50
17/01/2019	50
18/01/2019	50
22/01/2019	60
23/01/2019	50
25/01/2019	57
28/01/2019	62
30/01/2019	60
01/02/2019	57
04/02/2019	81
05/02/2019	77
06/02/2019	71
13/02/2019	57
15/02/2019	57
22/02/2019	60
26/02/2019	67
01/03/2019	80

**Figure 6: Percentage of PIP consultations with patients**



### Interviews with people in custody

Using an abridged version of the original sample of 10000 Voices Survey<sup>15</sup>, 20 people in Bann House were interviewed about the impact of the revised prescribing process.

The service users interviewed highlighted the importance of having someone in reception with the time and expertise to explain prescribing in prison and why some medications are changed. They also emphasised the importance of explanation of why medications are changed to liquid form, or a different daily regimen due to dose change. They said it would be good to get a chance to go over these conversations again in the first few days following admittance. They appreciated the time the PIP gave to them and said it increased their confidence in prison healthcare. They commented on how well the PIP and the committal nurse were working together.

A frequent negative comment (30%) was that evening medication administered by the night staff arrived too late, and disrupted their sleep, with some reporting embarrassment that their roommate was also woken due to the medication arriving late in the evening.

The pilot was seen as an improvement by people who had previously been in Maghaberry and had, had to wait for their medication, they said medication on time reduced the stress of the process, highlighting that prescribed sleeping medication on the first night of

incarceration was important for people to receive. This information was reported from 10000 Voices narratives (SEHSCT 2018) <sup>16</sup>.

## **Staff feel more supported**

### 4. Interviews with staff

Interviews regarding the process and impact of the pilot were conducted with the committal team, prison landing officers and the PIPs themselves.

#### 4.1. The committal team

Three members of the nursing team were interviewed and felt that the introduction of the PIPs had been a great support to them with regards to making decisions about medications. They felt more supported in their consultations and able to make collective decisions more safely about complex care. They perceived that PIPs facilitated the process greatly by preparing the medication kardex along with the prescription.

The committal team discussed how the flow of the pathway had improved over the time of the project, but stated that the 5pm start time of the PIPs was too late because service users had already been seen and possibly moved to Bann House before the pharmacist arrived. The nurses felt this complicated the process and it would be better for the PIPs to be present for the whole session, beginning at 3pm when people start to arrive into custody.

The committal nurses said they felt under pressure to administer the prescribed medication at the time of reception. They felt there was often not time to do so, and if more medication was to be administered in reception, the pharmacist or a pharmacy technician should dispense the medication to speed up the flow of the process for administration. This would require a review of the position of the OoHs Medical Service medication cupboard in reception in order to facilitate access by the pharmacy team.

Finally the committal nurses talked of the communication interfaces between the PIPs and nurses. The PIP room was not adjacent to the nursing consultations and had no telephone resulting in many interruptions. Having the rooms co-located would be much better equipped with space for consulting with the service user and equipped with a telephone would be much more effective for operational working.

#### 4.2. Interview with four Bann House officers

The landing officers recognised the pilot as an improvement to care. They discussed the positive impact of people receiving their medication on time and how this reduced the level of frustration when people first entered prison. The landing staff stated that the delay in the administration of medication by the night staff could be difficult if the medication was given on a second round late at night after 11pm. This would involve unlocking of the cells and people being woken from their sleep, disrupting the quiet of the landing at night for everyone.

### 4.3. Interview with the three PIPs

The PIPs discussed that an earlier start time was needed for the pharmacist to begin to start preparing as people arrived into the prison, not when the committal process had already begun. They said it was difficult to catch up if patients had already had their consultation with the nursing team.

The PIPs talked of the difficulties they experienced at first, getting used to the prison healthcare systems and processes and of the initial resistance to the pilot, from the committal team and the NIPS reception staff, as it was perceived that the PIPs would generate more interruptions and further slow down an already pressurised process.

Half way through the pilots the PIPs took on a more service user facing role, they each talked of the benefit this had to the people in custody. They discussed their role in altering medicines due to prison prescribing requirements. This would reduce the anxiety people had about their medications not being right. The consultation also involved advice to patients, how to take medications and what side effects may be expected.

The PIPs commented that the pilot contributed to reduced calls to the OoHs Medical Service, saving time in the prison and also for the OoH GPs. One of the PIPs commented that the prescription of chlorthalidone was one that they were not experienced in which meant they called the OoHs Medical Service for advice. They suggested future training for PIPs in certain specific prescribing areas for the prison population would be useful.

All the PIPs commented on the condition of their room for the pilot, that its location was not ideal, and that in the future it should be co-located with the nursing team with a space for patient consultation and also a telephone was essential for the process. Co-locating the service in an appropriate room will enhance the communication between the pharmacy and nursing team and also the service user experience.

All the PIPs advised that a formal protocol for prescribing, as part of the committal process, should be developed, with each of the team, including the prison staff, understanding each other's role and what information exchange was required. They hoped staff would now see the benefit of the pilot and work collaboratively in the future.

## Discussion

Change initiatives were decided collectively by the QI team with a strong emphasis on co-design with service users. Service users highlighted the information that should be shared, the importance of accessible language and feedback on the changes in the pathway. These changes were made incrementally in PDSA cycles with evaluation of process, balancing and outcome measures used. Analysis of the impact of change was made using the Tools for Improvement, using run charts and exploration of variation in the process using Statistical Process Control (Langley et al 2009)<sup>13</sup>.

The PIP pilot led to many improvements in care, the PIPs increased the number of medications prescribed in reception. This resulted in medications being received on time with a marked reduction of 30% of omitted first dose medication( Figure 5). This was reported by people in custody to reduce the frustration and stress caused by delayed

medication at the time of incarceration. The prison landing staff reported that there were less signs of concern about medication when people arrived in Bann House. The service user facing consultations were seen as an improvement to communication and a welcome as people enter custody, the PIPs reported multiple conversations about what mattered to people, and the nurses also appreciated this aspect of the pilot. The staff interviews revealed the need to redesign the space used for healthcare committals to enable the PIP to have a consultation room co-located with the nursing team to enable good communication between the teams. Further work is needed to secure the medication cupboard in the committal room to facilitate safe dispensing and administration. The team needs to work with NIPS to secure a space.

The number of prescriptions written in reception increased but the administration was still largely left to the night staff and so did not take place reception. There was a consensus within the nursing team, that due to time pressures the medication could not be dispensed and administered by the committal nurse on duty. The night staff had increased the number of medications to administer and both staff and individuals in custody reported that the late night medicine round was disruptive to sleep and for people settling on the first night of admittance into prison.

The impact of the study has been that introducing a PIP as part of the team has shown to improve the quality and safety of prescribing, and shift the focus of care to what matters to people in custody, receiving medication without omission.

### **Value to SEHSCT and NIPS**

Prison Healthcare has been on the Trust Corporate Risk Register for many years and the committal process has been criticised recurrently by inspections. It was an objective of both organisations to make improvements to transform the process. There has been much collaboration during this project with collective ownership and providing opportunities for management and frontline staff to input into the change. The value of the pilot is also outside of prison healthcare as it reduced demand on the OoHs GP service.

The involvement of people in custody to co-design improvements is an outcome of transforming services to become people centred. Improving the quality, timeliness and safety of the prescribing process, is of much value to the organisations, resulting in improved patient experience, less waste, lower staff costs and a predicted reduction in complaints and incidents. Issues in the prescribing practice have been highlighted in recent inquest reports. Effective changes in the pathway outcomes will reflect positively on both organisations.

### **Recommendations**

The next stage of this project would be:

1. Explore commissioning of the role of the PIP in the committal team.
2. To develop a protocol for the administration of medication, with roles and responsibilities assigned to an enhanced committal team.
3. Implement administration of medicines in reception to improve timeliness and reduce delays.



4. Explore the utilisation of pharmacy technicians to support administration of medication process in Reception.
5. Review the location of the PIP in reception to enhance front facing consultations.
6. Investigate space and stock of medication cupboard to enhance dispensing process.

## Conclusion

The SEHSCT Prison Healthcare senior management team will assess the impact of the pilot and explore the sustainability of having a PIP in the committal team.

Through supporting the prison and healthcare staff to enhance the flow of the process and implement quality controls reflecting patient's expectations, much has been achieved to improve the outcomes of the committal process to provide a welcome.

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