

In this article...

- Problems associated with the supply of medicines in prisons
- Why the number of prisoners receiving prescribed medicines has increased
- How medicines distribution lockers were implemented to improve medicines safety and access

Using medication distribution lockers for prescribed medicines in prisons

Key points

There are challenges involved in providing medicines for an increasing number of prisoners with healthcare needs

An innovative, biometric secured medical locker was successfully used for the first time in a UK prison

The locker enabled prisoners to manage some medications for themselves and was well received by prisoners and healthcare teams

It was proven to be accurate and flexible, reducing missed medications while saving time, frustration and stress

Author Hayley Peek is health and social care director, Serco.

Abstract The management of medications in prison is challenging for all involved but is required for an increasing number of prisoners. To improve outcomes for patients, healthcare and custodial staff, work was undertaken in prison to better understand the challenges. This was followed by a pilot of a specially designed medication distribution locker that allowed remote collection of in-possession medication at Her Majesty's Prison Dovegate. Positive initial results support a wider rollout across the prison.

Citation Peek H (2022) Using medication distribution lockers for prescribed medicines in prisons. *Nursing Times* [online]; 118; 1, 31-33.

Medication plays an essential part in prison healthcare, with large volumes routinely prescribed and dispensed. Prisoners can manage a range of medications and store them independently after a suitable risk assessment has been undertaken (Offender Health Research Network, 2009). The prison population has specific risks around medication use, including misuse of substances, polydrug use, trading of prescribed medications and bullying or lack of concordance to medications regimes. For this reason, some medications (including controlled drugs) are supervised by health professionals; however, this prevents prisoners from managing their medications independently and creates a huge demand on services in the prison.

To improve service delivery for prisoners, healthcare partners (Practice Plus Group) and custodial staff, a project was carried out to introduce a technical solution to support medications management in a prison environment. Due to the nature and complexity of this project, there were several things to do and consider before anything specific could be put in place, which included:

- Definition of the problem and a review of the literature;
- Site selection;
- Baseline questionnaire;
- Post-implementation focus groups with prisoners, and healthcare and custodial staff;
- Post-implementation survey.

The problem

From the start, the working hypothesis for this pilot was that collecting medications is challenging for prisoners and staff – both custodial and healthcare – in a prison environment, and that the experience could be positively improved for all those involved, including prisoners, through a technological solution. This was based on the knowledge that delivering medications in prison is taking up increasing amounts of time and is a negative experience for prisoners (The King's Fund, 2020). Medications management is consistently the area of most complaints for health providers across prison sites.

A review of the literature suggests there is a clear increase in demand for medication in prisons, which then leads to increased time spent on delivery. There are several factors involved in this trend:

Clinical Practice Innovation

- The number of prisoners overall has increased (Home Office, 2018);
- The number of prisoners aged ≥60 years has increased by 82% in the last decade (House of Commons Justice Committee, 2020);
- There has been an increase in poor health and long-term conditions in prison populations, for which prescription medicines are required to treat and manage symptoms (Prisons and Probation Ombudsman, 2017);
- Medication use nationally in the prison population has increased (The King's Fund, 2020);
- Changes in legislation have increased the number of medicines classified as scheduled controlled drugs that require administration as non-in-possession medicines (Home Office, 2018);
- More trading or diverting of medications occurs in prison, with the latest published data showing that 20.4% of random mandatory drug tests in 2017/18 were positive. This includes both illicit and prescribed medications that have been diverted (Her Majesty's Prison and Probation Service, 2019).

Although the changes to date have been unpredictable, based on national current medication trends, it is unlikely that the requirements for medications in custody will decline.

Ensuring medications are managed effectively in prisons is difficult and time consuming for prisoners as well as healthcare and custodial staff. In addition, collecting medication can affect prisoners' access to other key tasks in the day such as work, education and exercise. Most of the challenges are due to the physical infrastructure of the prison, although the regimes of most prisons were also not designed to manage this scale of demand. Consequently, there is increased risk associated with prisoners electing not to take medications consistently, diversion and bullying, among other factors.

The initial part of this work was to establish a prison-specific view on medications to validate the hypothesis and supporting evidence base.

Site selection

After a review of all Serco sites, Her Majesty's Prison (HMP) Dovegate in Staffordshire was selected for this pilot. HMP Dovegate holds male category-B prisoners; they do not require maximum security, but the potential for escape should be very difficult. In addition to this, the

Fig 1. Medicines locker



1a. The medicines distribution locker was designed and built after guidance and feedback from stakeholders



1b. Fingerprint technology is used to access the medicines distribution locker



1c. Medicines are stored safely in the locker and prisoners are notified when they are ready for collection

"The number of prisoners over the age of 50 almost trebled between 2002 and 2016"

population was stable and the infrastructure was available and appropriate, including information technology (IT), accessibility, space and security. The pilot was carried out in one section of the prison, called the therapeutic community, which holds up to 200 inmates

Pre-implementation questionnaire

Once the site was selected, a pre-implementation questionnaire was designed and made available to prisons from 10 May 2019 until 19 May 2019. It was given to all

prisoners via the custodial management system, which is a self-service device used in prison settings.

The questionnaire comprised 15 questions, some of which were open, and used a Likert scale. In all, 273 people out of total prison population of 1,060 completed the survey, giving a response rate of 26%. The results revealed that:

- A very high proportion (85%) of those who responded were on medication. Of those on medication, 72% received in-possession medications;
- Reasons for not receiving medications were varied but included both prescription and process errors;
- The process of being unlocked (allowed out of their cell) for medications was mixed: 45% of responders were not satisfied, 27% were satisfied and 28% were neutral;
- The experience of queuing for in-possession medications was unsatisfactory;
- A high proportion (65%) of respondents felt that the process of collecting medication prevented them from doing other things, including exercise, "food", work and having choice;
- In all, 61% of respondents were unlocked in <20 minutes to collect medication, 25% waited 20-40 minutes and 14% waited >40 minutes;
- 68% of prisoners reported waiting in the medication queue for 0-20 minutes, 25% waited 20-40 minutes and the remaining 7% waited for >40 minutes;
- 27% of respondents had been asked to trade medications by other prisoners.

It was shown that the overall experience of receiving medication was not satisfactory and the hypothesis that collecting medications was challenging for prisoners, custodial staff and healthcare staff was supported.

To address this, a medicines distribution locker was designed and built. This took on board feedback and guidance on design principles from a range of stakeholders, including healthcare commissioners, healthcare providers, prisoners and prison staff. The resulting device (Fig 1) was installed in April 2019 and was evaluated over a six-month period.

Post-implementation focus groups

After the installation of the medicines distribution locker, focus groups (up to 10 people in each) were held with the three key groups – prisoners, health professionals, custodial staff – between 24 June 2019 and 8 July 2019.

Prisoners

Prisoners were extremely positive about the medicines distribution locker and felt the experience of collecting medications was greatly improved. Key themes that emerged from the focus group were that use of the medicines distribution locker:

- Freed up time for custodial staff, which improved overall access to available services;
- Was less disruptive than previous processes;
- Was faster than previous processes;
- Allowed for flexibility around the prison regime;
- Resulted in increased uptake and collection of medication – the service was considered to be more reliable than previous processes and it was clear when medications were available, as prisoners were notified when they had been loaded;
- Reduced some of the overall stress and time for prisoners in the medications collection process;
- Reduced anxiety and concerns about medications collection;
- Increased prisoners' independence and control of medications;
- Improved privacy and decency.

Custodial staff

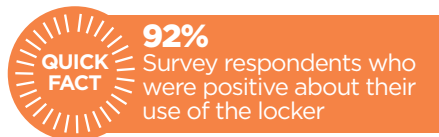
Custodial staff felt the pilot was a positive development and addressed some of the challenges experienced in managing medications in prisons generally. The key points made were that the locker:

- Offered more flexibility around regime management;
- Resulted in fewer queries about when medications were available as notification was provided via a custodial management system;
- Reduced missed medications;
- Saved staff and prisoner time, and gave custodial staff more time to complete other tasks;
- Improved safety by reducing prisoner frustrations relating to medications management;
- Reduced staff stress.

Healthcare staff

A range of multidisciplinary (pharmacy and nursing) staff attended the focus groups. Those present were unequivocal about the challenges of delivering in-possession medications. There had previously been no process to notify prisoners that medications had arrived and the infrastructure meant storage options had been limited, which made identifying the

medications difficult. As a result, the staff felt the medicines distribution locker improved the whole medications administration process, allowing more effective interactions with prisoners and reducing abuse. Response rates for queries were also improved as prisoners could send queries directly to the pharmacy rather than having to rely on nurses to relay information.



Key themes highlighted by healthcare staff were that the medications distribution locker:

- Was accurate;
- Was quicker for nursing staff, less stressful and easier than previous processes, with less time needed to locate non-in-possession medication;
- Improved space and storage for non-in-possession medication;
- Led to greater compliance in prisoners collecting their medication;
- Improved communication with patients and reduced frustration as a result of the reminder sent to prisoners through the custodial management system;
- Reduced waiting times for prisoners;
- Improved privacy;
- Resulted in fewer drug errors related to patient identification as biometrics improves checking (for example, for patients with the same names);
- Offered fewer opportunities for prisoners to divert supervised medications at the hatch due to reduced activity;
- Increased prisoners' self-management of medications;
- Helped to improve audit processes.

Post-implementation survey

In addition to the focus groups, another survey was conducted between 24 July 2019 and 31 July 2019 with prisoners in the therapeutic community, where the new method of providing medication was located. This survey revealed that:

- Of those who answered the survey, 50% ($n=49$) had used the medicines distribution locker;
- 80% of those who completed the survey thought the medicines distribution locker was easy to use;
- 92% of respondents were positive about the experience of using the new system;
- Only 14% of respondents said they would like to see improvements. Many

of the suggestions made highlighted areas of improvement in the whole pathway, rather than relating specifically to the locker – for example, a better repeat prescription process.

Lessons learnt

Incorporating service users and key stakeholders in all areas of delivery was invaluable. The feedback gained prompted some changes in the design and functionality of the medicines distribution locker, including all doors being able to open consecutively to allow quicker loading for clinicians and fingerprint reader changes to improve access. Service-user representatives are also now being trained to support wider rollout of the initiative and make sure any technical issues are reported at the earliest opportunity. If IT or access issues do occur, there is a contingency process in place to deal with them and, if an immediate fix cannot be put in place, medications can be given manually to avoid delays.

Outcome

It is clear that medications management is a challenge for staff and prisoners alike, and operational changes will not be sufficient to resolve these challenges. The successful pilot of the medicines distribution locker solution at HMP Dovegate has been an overwhelming success and demonstrated improvements in patient experience and access to medication. Although the findings are limited to a very small-scale population, the positive results have supported changes to the model. An extension of the pilot across the prison was planned for 2020 but had to be delayed due to the Covid-19 pandemic. This has now commenced with rollout in another Serco prison (HMP Ashfield) with three other sites aligned for installation by March 22. Our healthcare partner has also rolled this out in several Her Majesty's Prison and Probation Service prisons with a wider rollout planned into 2022. **NT**

References

- Her Majesty's Prison and Probation Service (2019) *Prison Drug Strategy*. HMPS.
- Home Office (2018) *A Consultation on Proposals to Schedule Pregabalin and Gabapentin under the Misuse of Drugs Regulations 2001*. Home Office.
- House of Commons Justice Committee (2020) *Ageing Prison Population: Fifth Report of Session 2019-2021*. House of Commons
- The King's Fund (2020) Prison health: what happens inside and outside the walls? [Podcast] kingsfund.libsyn.com, 27 Feb.
- Offender Health Research Network (2009) *Evaluation of In-possession Medication Procedures within Prisons in England and Wales*. OHRN
- Prisons and Probation Ombudsman (2017) *Older Prisoners*. PPO.