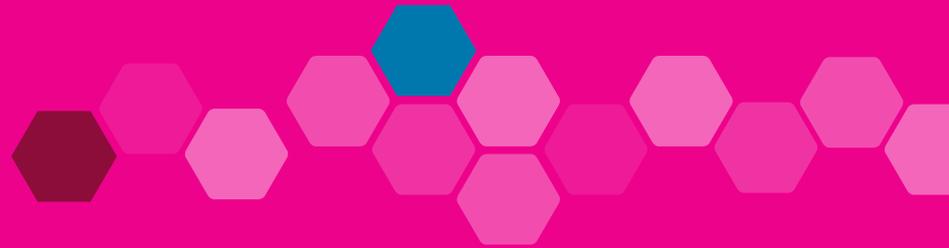




Rapid Internal Process Evaluation of Covid-19 Contingency Planning - Opioid Substitution Treatment (OST) in Prisons.



HEALTH AND SOCIAL CARE

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**Health and Social Care Analysis
COVID Public Health Directorate**

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KEY FINDINGS

- Buvidal makes logical sense as a response to a pandemic where prison operations, including Opiate Substitution Therapy (OST) provision, might be interrupted.
- It would likely have been challenging to implement Buvidal provision for the first time during a pandemic, particularly in prisons with large numbers of OST patients. Findings suggest that the timing of the request from the Scottish Government for prison health centres to switch clinically appropriate OST patients to Buvidal, arrived when prison health centres had already implemented Covid-19 contingency plans, and uncertainty about some practical aspects also created challenges..
- For these reasons, alongside uncertainty about the future direction of the Buvidal programme, there has been low uptake of Buvidal among OST patients in prison, therefore there is limited evidence to assess any impact Buvidal has had on OST patients, prison operations or health services.
- By the time of writing, seven prisons in five Health Boards had started to move some of their eligible patients onto Buvidal. These prisons had accounted for just under half of the total prison population on OST in February 2020.
- By August 2020, one tenth of the estimated total prison population on OST and with more than six months left in custody had moved over onto Buvidal.
- Despite small numbers, the proportion of patients still on Buvidal after one month was high.
- Few adverse effects had been recorded, aside from those which would be expected from withdrawal from some forms of oral OST.
- Whilst there is limited evidence, the anticipated outcomes from people switching to Buvidal highlight that it has considerable promise to deliver a host of benefits to patient outcomes.
- Patient experience should be a central focus of any future research and, where possible, should seek to follow patients over a period of time, perhaps using a qualitative longitudinal approach, and should seek to document the impact that Buvidal may have on patients' throughcare progress after liberation from custody.
- This research has demonstrated the current burden placed on prison operations and healthcare services when administering daily OST, which in some prisons is considerable and points to the significant benefits which Buvidal could bring.
- Further clarity is needed to increase clinical confidence to address concerns about whether or not patients exiting custody would be able to access Buvidal in their community.

1. BACKGROUND AND PURPOSE OF THIS STUDY

1.1 Introduction

On May 1st 2020 the Scottish Government requested that all patients in custody who were on daily oral Opioid Substitution Treatment (OST) and currently serving a sentence of six months or longer, be moved onto Buvidal (a slow release OST injection) where clinically appropriate¹. This was intended as a contingency measure in prisons to respond to Covid-19. The daily administration of oral OST places a considerable burden on the Scottish Prisons Service (SPS) and those who live and work in prisons. At this time, there were significant concerns about how this could be sustained while SPS officers and prison health centre staff were also responding to the pandemic. To support the Buvidal programme, the Scottish Government also issued National Clinical Guidance² and indicated support for Health Boards to incur emergency contingency plan expenditure of up to £1.9 million to enable transitioning to Buvidal in prison settings which was also included in NHS Board Mobilisation Plans. The funding covered the cost of the medication for a four-month period from May to August 2020, which was then extended to September to accommodate one month lead-in time.

This report delivers on the commitment by the Scottish Government to undertake a rapid evaluation of the Buvidal programme to inform decision-making about what should happen beyond the initial contingency period (May - September 2020).

1.2 Policy Background

Opioid Substitution Treatment (OST) has been used in Scotland's prisons for approaching twenty years. Research has demonstrated a very strong association between receipt of OST and lowered mortality among opioid-dependent people in prison³. Treatment most commonly consists of daily oral doses of Methadone administered under supervision throughout the prison stay. In a small number of cases, different treatments, such as Buprenorphine, are used instead. It has been estimated that approximately 25% of people in prison in Scotland receive a daily supervised dose of OST⁴. This is resource intensive in terms of healthcare and prison officer staff time⁵ and also has a detrimental impact on patients' daily routine and limits their ability to participate in prison life. In comparison, Buvidal is a

¹ <https://www.gov.scot/publications/coronavirus-covid-19-opiate-substitution-treatment-in-prisons---chief-medical-officer-letter/>

² Available at: <https://www.gov.scot/publications/coronavirus-covid-19-clinical-guidance-on-the-use-of-buvidal-in-prisons/>

³ Larney, Sarah, et al. "Opioid substitution therapy as a strategy to reduce deaths in prison: retrospective cohort study." *BMJ open* 4.4 (2014). Available at: <https://bmjopen.bmj.com/content/bmjopen/4/4/e004666.full.pdf>

⁴ Chapter 2 of this report discusses the scale of OST use in custody in Scotland.

⁵ Chapter 3 includes data to illustrates the extent of staff resource taken up by the administration of OST.

sustained release depot injection (i.e. an injection formulation of a medication which releases slowly over time) of OST, available as a 7-day or 28-day dose, which reduces administration and treatment episodes.

To ensure continuity in the administration of OST for patients and to support prison and healthcare staff during the Covid-19 pandemic, the Scottish Government worked with partners to explore OST contingency options and identified Buvidal injections as the most pandemic-appropriate alternative to daily OST arrangements. Buvidal is fully licensed and has been approved, on a restricted basis, by the Scottish Medical Consortium (SMC) for use by NHS Scotland for the treatment of opioid dependence. The introduction of Buvidal in prisons as part of contingency planning and response is consistent with SMC recommendations.

It was anticipated that rolling out Buvidal injections would remove the need for daily OST administration, therefore ensuring no gaps in treatment in the event of significant disruption to prison operations due to Covid-19, and avoid unplanned and unmanaged withdrawal among OST patients. Further anticipated benefits from the wider prescribing of Buvidal were a rapid reduction in the number of daily patient-staff interactions, freeing up resources to carry out other essential patient care and SPS activities, and reducing the risk of Covid-19 transmission within prisons.

A summary of evidence about Buvidal produced by the National Institute for Health and Care Excellence in 2019 suggested that it may have a place in treating opioid dependence in people in custodial settings, where the risk of diversion and time needed for supervised consumption currently leads to challenges in supplying supervised medicines safely⁶. Recent research has documented that Buvidal may offer specific benefits for OST patients in custody because of the practical elements (i.e. not having to receive medication everyday) and the discretion of the treatment, which could lead to a reduction in the amount of bullying and intimidation encountered as a result of being an OST patient⁷. The switch to Buvidal may also reduce incidences of people diverting their OST medication, which is commonly reported in prisons and is associated with bullying and drug misuse⁸. Buvidal also exerts a blocking effect when taking other opioids which means it could prevent some drug related overdoses and deaths in prison and after a person is liberated. Additionally, offering Buvidal increases the treatment options for people on OST in prison, thus widening patient choice. Allied to this, the guidance issued by the

⁶ Available at: <https://www.nice.org.uk/advice/es19/resources/opioid-dependence-buprenorphine-prolonged-release-injection-buvidal-pdf-1158123740101>

⁷ Chappuy et al. (2020) "Readiness to try extended-released buprenorphine and related factors of interest: comparison between incarcerated and non-incarcerated subjects with opioid use disorder." Under Review by *Harm Reduction Journal*. Available at: <https://www.researchsquare.com/article/rs-43617/v1> .

⁸ Sindicich, N., Zador, D., Larney, S., & Dolan, K. (2016). Patient Motivations, Perceptions and Experiences of Opioid Substitution Therapy in Prison. National Drug and Alcohol Research Centre, University of New South Wales. Available at: <https://ndarc.med.unsw.edu.au/sites/default/files/ndarc/resources/Technical%20Report%20Number%20332.pdf>

Scottish Government set out how people could switch back to their previous OST if they felt Buvidal was not an effective treatment option for them.

A number of factors related to the short timescale of the Buvidal contingency programme (May-September 2020) have limited the potential for the programme to demonstrate significant impacts on the prescribing of OST in prisons. Some boards chose not to provide Buvidal and no board has moved all eligible and willing patients from daily OST to Buvidal. The research illustrates that moving patients over from Methadone to Buvidal takes time, particularly if they were on higher daily doses, which can impact, practically, on the number of patients who can be transitioned to it at one time. Health centre staff also needed to be trained. Added to this, there appeared to be a reluctance among some OST patients to switch over to Buvidal because of the newness of the treatment.

Based on the outcome of this rapid evaluation report and a review of NHS Board's spend to date, the Scottish Government took the decision to extend support for NHS Boards to incur emergency contingency plan expenditure for the cost of Buvidal medication in prison settings until the end of this financial year, to 31 March 2021. This support is to cover expenditure on the medication costs only and should be scored in NHS Board's local mobilisation plans. Scottish Government communicated this decision to Health Board Chief Executives, Local Authority Chief Executives and Health and Social Care Partnership Chief Officers on 13 November. When communicating on this we have been clear that funding from 2021-22 onwards must come from NHS Board's pharmacy budgets.

1.3 Study Objectives and Methods

The key objectives of this evaluation were to explore:

- The extent to which patients on OST had been moved onto Buvidal between May and August.
- Any impacts of the Buvidal programme on patients, and prison and healthcare operations, and as a Covid-19 contingency measure.
- Reasons for patient uptake, non-uptake, and reverting back to previous OST
- Lessons from implementation.

Data-collection, analysis, and reporting for the rapid evaluation were undertaken in-house by Scottish Government Health and Social Care Analysis over July and August 2020. The Scottish Government's National Clinical Guidance document for the Buvidal contingency programme had proposed a number of initial evaluation objectives and measures. However, following discussion between government researchers undertaking the study and policy officials, it was agreed that not all of those measures were relevant for the purposes of the current evaluation and it was established that data were not available for some of the original measures.

As a service evaluation, the study did not need NHS Ethics approval; it was screened using the NHS Ethics decision-making tool⁹ and a Scottish Government Social Research Ethics Checklist was completed. The SPS Head of Research was content that it did not need to go to their research ethics panel, and the study was supported by the SPS Head of Health Strategy, who helped make the necessary contacts for data collection and interviews, and by the Healthcare Improvement Scotland (HIS) National Prisons Pharmacy Advisor. A Data Protection Impact Assessment was completed.

The evaluation is based on quantitative and qualitative evidence. As it was being planned, information from Health Boards had already made clear that patient numbers in the programme were low, not all boards were implementing the switch, and that there was a significant lead-in time involved in moving some patients across from daily OST. These factors, alongside the limitations on activities within prisons and additional Covid-19 pressures on both SPS and Health Board staff, limited the potential for quantitative data to address the evaluation objectives, thus it was recognised early on that qualitative data were key.

Quantitative measures

The quantitative measures used in this report consist of: existing data on the prison population and OST prescribing; and data gathered for this evaluation, which include patients numbers moved onto Buvidal and staff time. These are discussed in sections 2 and 3.

Qualitative methods and sample

A qualitative component of this evaluation was included to assess the acceptability, effectiveness and feasibility of Buvidal as a Covid-19 contingency response. Qualitative data was gathered using semi-structured interviews with a purposive sample of stakeholders with knowledge and experience of Buvidal, OST in prisons more widely, and prison operations.

Twenty-four interviews were undertaken (via telephone or MS Teams) between 14th and 23rd July with: six SPS Governors in Charge (GiCs) in Scotland; 15 healthcare staff; and the researcher also spoke with three patients in a single prison via the NHS Near Me video consulting platform.

The six GiCs interviewed (out of a total of 15 prisons in Scotland) managed a mixture of national and local institutions. Collectively they were responsible for populations that covered all categories of offenders in custody in Scotland, including young people with very low levels of OST needs, and women, where OST patients make up a higher proportion of the population. The number of people on OST in these prisons varied from under 50 to several hundred.

⁹ Available at: <http://www.hra-decisiontools.org.uk/ethics/>

The 15 healthcare staff interviewed included prison health centre managers, nurses and addiction workers, GPs, and pharmacists from across 5 Health Boards. The staff interviewed had a range of experience of healthcare in prisons, with most having worked in prison settings for several years.

At the time of their interviews, two of the three OST patients interviewed were still taking a monthly dose of Buvidal, while the other patient had since reverted to their previous OST prescription. The number of patients interviewed is too small to draw on for the report, but will help to shape research questions about patient experiences, which should be addressed through future evaluation or research.

Interview data comprised notes taken by the social researcher during the interviews. The interview notes were then anonymised and analysed for common emergent themes. The processing of personal data was in line with GDPR and fully documented in the Data Protection Impact Assessment.

2. BUVIDAL UPTAKE IN SCOTTISH PRISONS: MAY-AUGUST 2020

2.1 Overview of Uptake

Prior to Buvidal being recommended by the Scottish Government, there had been no estimate made of the eligible prison population on OST – i.e. patients who were serving a sentence of six months or longer and where switching to Buvidal was clinically appropriate. To move towards some understanding of the potentially eligible population, and therefore contextualise the uptake of the Buvidal programme across the prison estate, it was necessary to understand the potential size of the population who might be eligible for the switch. It was not feasible to address the ‘clinically appropriate’ criterion within the time and resource limits of the evaluation, as this would likely need exploration of patient-level data. This section discusses instead how the data that is available can provide a sense of scale and context.

The prison population has declined since the onset of the pandemic and at 17 August 2020, out of a total population of 7,364, 2,645 (36%) had a release date of more than six months from that date. Based on an estimated 26% being on OST, this would equate to 688 patients on OST with more than 6 months remaining on their sentence. This estimated figure, however, does not tell us what proportion of OST patients would be clinically appropriate to transfer to Buvidal, but offers some basis for comparison with the figures who have moved over since May 2020.

The proportion of people in each of Scotland’s 15 prisons who are on OST also varies, in part due to demographic variations in the populations in different prisons, mainly in terms of age, gender, the length of the sentence, and nature of offence. Table 1 presents a snapshot of the latest available OST prescribing figures from February 2020 for the entire estate (provided by the Scottish Health in Custody Network), against the known population of each establishment at that time.

Data were not available to indicate the proportions of who would also be beyond six months of release to allow more detailed estimates by establishment. Instead, Table 1 gives a more broad brush indication of relative numbers in different prisons.

Table 1: By prison: total pop, no. on OST and % of population on OST. Snapshot at 19 Feb 2020¹⁰

Health Board	Establishment	Total pop	Total no on OST	% of pop on OST in the prison
Ayrshire & Arran	Kilmarnock	598	192	32%
Dumfries & Galloway	Dumfries	189	25	13%
Forth Valley	Cornton Vale ¹¹	94	41	44%
	Glenochil	724	115	16%
	Polmont ¹²	461	37	8%
Greater Glasgow & Clyde	Barlinnie	1291	283	22%
	Greenock	203	72	35%
	Low Moss	849	233	27%
Grampian	Grampian	444	152	34%
Highland	Inverness	127	28	22%
Lanarkshire	Shotts	546	189	35%
Lothian	Addiewell	767	196	26%
	Edinburgh	898	210	23%
Tayside	Castle Huntly	114	24	21%
	Perth	700	254	36%
	All prisons	8005	2051	26%

Although the Scottish Government asked for all eligible patients to be moved over, Health Boards adopted different approaches to prescribing Buvidal. Some sought to make Buvidal available to as many clinically eligible patients as possible, whereas

¹⁰ The prescribing data from 19 February 2020 is the latest available. Data is not easily extractable from NHS records.

¹¹ Cornton Vale is a female only prison.

¹² The population at HMP Polmont is currently comprised of young people aged 16-21 and adult females.

others took a more limited approach. For example, some adopted a Test of Change method, while others only targeted certain groups of OST patients, such as those already on a formulation of Buprenorphine. Additionally, it was noted that in some prisons there were too few eligible patients on OST, or that the prison itself had very low numbers of OST patients overall, for Buvidal to be adopted at this time. These factors, when combined with a reluctance shown by some patients, help to understand why the current numbers of patients who have switched to Buvidal is low as a proportion of the total number of OST patients in prisons.

Health Centre Managers were asked to provide the Scottish Government with the following data where possible: numbers of patients who had been moved from another OST to Buvidal since the guidance had been issued; the numbers still on Buvidal after one month; numbers of adverse incidents associated with Buvidal; numbers of patients reverting to their previous OST. However, some were unable to provide this level of detail. Data are also not comparable across institutions due to the different start dates of the use of Buvidal, the differing populations and numbers on OST, and the lack of prescribing data beyond February.

Data were received for seven institutions which had initiated the prescribing of Buvidal across five Health Boards, which represented a range of different types of institutions and populations. Based on the data in Table 1, the numbers of people in these individual prisons on OST varied from below 50 to over 230; and the proportion of people in individual prisons on OST ranged widely. At the February snapshot, the seven prisons contained approximately 44% of the Scottish prison population and almost 50% of the total prison population on OST.

At the time of writing, a total of 66 patients in these seven prisons had been transferred across to injections of Buvidal. This represents around one tenth of the total prison population of the estimated 688 people in Scotland who were on OST and had longer than 6 months left on their sentence on 17 August. Assuming these prisons continue to house almost half of patients on OST, as shown in Table 1, and that the estimate of 36% of OST patients have longer than six months in custody hold true, this would suggest that these prisons have transferred almost 20% of eligible patients onto Buvidal.

The proportion of each prison's population on OST who had moved to Buvidal varied widely and is not quoted here as it would only be meaningful alongside data on eligible numbers, which were not available. In some cases, additional patients were reducing their Methadone prescription in preparation for a switch to Buvidal. If further research were carried out it could seek to understand what proportion of this cohort are clinically appropriate to be offered Buvidal and explore how that may vary by institution. Due to the small numbers and given the various caveats around data limitations and comparability, figures have not been broken down in this report for individual prisons or Health Boards.

The proportion of patients still on Buvidal after a month was extremely high on the basis of data from five of the health centres, although the numbers reported are too low to draw quantifiable conclusions about long-term adherence. Numbers of

adverse events were low and mainly to be expected in relation to side effects of people experiencing withdrawal from Methadone.

Looking beyond the current Covid-19 contingency programme, and to understand the potential uptake and impact of Buvidal, it is essential to take into account that the prison population is not static over a year. Therefore, future planning should consider the wider population passing through the prisons and who could be eligible for Buvidal if it were continued beyond the Covid-19 contingency measures. Figures for the 2018-19 financial year show that 17,294 individuals at some point were in prison during those 12 months (3,417 were in for the full year; and 13,877 for a part-year).¹³ This needs to be taken into account in forward planning by Health Boards, the SPS, and others involved in providing care and support to those with opioid dependency in the criminal justice system.

2.2 Patient perspectives on switching to Buvidal

Qualitative insights offered some indication about the motivations patients gave for switching to Buvidal, why some did not want to change their OST, and why some reverted back to their previous OST after starting Buvidal.

2.2.1 Motivations for switching to Buvidal

According to healthcare staff, patients' motivations for switching to Buvidal included thinking that it would improve the quality of their lives and the relationships they have with loved ones, who were often unsympathetic to them using Methadone. It was also described that patients wanted to switch to Buvidal because it would give them greater stability in the community, with Buvidal removing the need for them to attend a pharmacy on a daily basis, which may allow them to maintain more purposeful lives after release, including employment and even going on holiday. Lastly, it was described that Buvidal offered some patients the chance to start taking Buprenorphine who had previously been unwilling to do so because they did not want to be bullied for their OST. Two patients who were interviewed said they wanted to come off Methadone because of the side effects they experienced, including feeling sluggish and lacking motivation.

2.2.2 Motivations for not wanting to change their OST

According to healthcare interviewees, the most common reason given by patients for not switching to Buvidal was the newness of the treatment. Multiple healthcare interviewees described how patients said they did not want to be 'guinea pigs'. Others recalled patients citing pre-existing mental health problems, including needle phobia related to their past drug use and PTSD, which they felt would be too

¹³ Scottish Government (2020) Scottish prison population: statistics 2019 to 2020:

<https://www.gov.scot/publications/scottish-prison-population-statistics-2019-20/pages/10/>

complex to deal with currently were they to switch to Buvidal. Additionally, it was described that patients were concerned about whether or not they would be able to access Buvidal in the community, and that patients might continue to be reticent about switching over until continuity of access to Buvidal after their release was more clearly established. Lastly, it was described that some patients were reluctant to switch over to Buvidal because of concerns that it was a only a short term measure and they would then have to switch back to their previous OST.

2.2.3 Reasons for reverting

Healthcare interviewees described that patients were making the decision to revert to their previous OST because they were unable to cope with the withdrawal symptoms they experienced after starting Buvidal. This was the reason given by the one patient interviewed who had reverted back to their original OST. Other examples were given where patients said they wanted to detox entirely from OST, rather than revert to their previous treatment.

3. IMPACT OF THE BUVIDAL PROGRAMME

This section documents the qualitative impact of the programme, primarily from the perspective of GiCs and healthcare interviewees. It explores the impact of the wider prescribing of Buvidal on patients, prison operations, and health services.

3.1 Impact on patients

3.1.1 Observed impacts

Had time and circumstances allowed, the study would have sought to capture more first-hand patient views about their experience of Buvidal, including their decision-making process for changing their OST, how they experienced the transition, and the effect Buvidal had on their lives, including possible reversion to their previous OST. As stated, included in this evaluation are the perspectives of 3 OST patients in custody. At the time of their interview, 2 patients were stable on their Buvidal prescription while the other had reverted to their previous OST prescription. Interviews with healthcare staff explored their observations about how patients had responded to Buvidal, and what further benefits might be anticipated; although these carry a caveat about the small numbers and short period in which these observations are based.

Despite the limited patient experience data, almost every interviewee, including the 2 remaining Buvidal patients, were extremely positive about the potential benefits of Buvidal for OST patients over the longer-term. Additionally, a strong degree of correlation was observed between what different interviewees from different prisons were saying about the impact they had seen on patients who had switched, and these views largely aligned with the 2 patients interviewed who were on Buvidal at the time.

When asked about any changes they had seen in patients, those healthcare staff who had interacted with patients on Buvidal were fulsome in their praise for the impact it had on people. They described how Buvidal patients appeared happier, healthier, more lucid, and were moving forward with the recovery journey. The 2 Buvidal patients interviewed said they were happy and satisfied with the overall experience and the changes it had made to their lives. They described how taking Buvidal had improved their energy levels, mood, and made them feel like they were no longer taking OST. One described how they felt like they had become ‘the person I was before I started taking drugs’. It would appear that Buvidal could have life changing benefits for some patients.

With respect to impact on patient safety, only one incident of a Buvidal patient topping up with illicit substances was reported during interviews. There were no recorded attempts of patients attempting to divert their Buvidal. Although, given the suspected limited availability of illicit substances in Scottish prisons currently, a more accurate assessment of the impact of Buvidal on illicit substance use among

OST patients may only be possible once prison regimes return to something approaching normality.

3.1.2 Anticipated impacts

Healthcare interviewees anticipated a number of benefits for OST patients in prison should the Buprenorphine programme become more widely established. These included:

- Buprenorphine offered a more therapeutic and recovery-focussed form of OST because it removes the emotional peaks and troughs that people could experience associated with daily administration.
- Buprenorphine would provide ongoing stability to the lives of OST patients; rather than having their lives dictated to them by a medication regime.
- Because of the increased cognitive clarity experienced, Buprenorphine could promote greater involvement with purposeful activities in prison from OST patients.
- Having monthly appointments could support healthcare staff to build richer and more therapeutic relationship with Buprenorphine patients than currently possible during daily administration.
- Increased patient safety by reducing incidences of bullying, violence, and health risks (e.g. spread of blood borne viruses) associated with OST diversion.
- Reduce the stigma experience of OST, particularly among vulnerable groups, such as female OST patients, and those on Methadone.

In addition to anticipated benefits for OST patients in prison, healthcare interviewees highlighted that Buprenorphine could improve throughcare outcomes after patients are liberated from prison. It was described that freeing them from the need to adhere to a daily medication regime could support patients' efforts to secure and sustain employment. From a health perspective, it was also described that protective effects of Buprenorphine could reduce the risk of opiate overdose after their release from prison, sometimes as a result of missing OST doses in the community or being exposed to triggers that prompt relapse. It was stressed by several interviewees that the protection against overdose offered by Buprenorphine could be most impactful during the first two weeks after release, when drug related deaths among prison leavers are at their highest¹⁴.

3.1.3 Drawbacks for patients switching to Buprenorphine

Some drawbacks for Buprenorphine patients were identified by interviewees. For example, it was highlighted that the heightened cognitive clarity patients can experience was challenging for some individuals with mental health needs, often related to past trauma, and these patients mostly chose to revert to their previous OST.

¹⁴ Merrall, E. L., et al. (2010). Meta-analysis of drug-related deaths soon after release from prison. *Addiction*, 105(9), 1545-1554.

It was observed by most healthcare interviewees that the process of switching to Buprenorphine could be difficult for some patients and required a period of stabilisation. For patients switching over from higher doses of Methadone, some had been unable to lower their doses sufficiently to change to Buprenorphine. It was observed that patients suffered some side effects in the first few days of switching over. Difficulty sleeping and feeling fidgety were the commonly reported side effects as were feelings of withdrawal. In some cases it was reported that while people reported feeling symptoms of withdrawal, they showed no physical symptoms when examined.

Healthcare interviewees highlighted that in order for the first dose of Buprenorphine to be most effective for OST patients currently taking Methadone, they needed to experience a degree of withdrawal. Consequently, it was suggested that highlighting the difficulties faced by Methadone patients during the transition should be part of discussions with prospective Buprenorphine patients going forward, and that additional resources could be considered to support Methadone patients through the transition to Buprenorphine. The need to experience withdrawal does not apply to OST patients on another formulation of Buprenorphine, who switch treatment from one day to the next.

An unexpected finding was that some healthcare interviewees described OST patients switching from oral Buprenorphine more commonly reporting feelings of withdrawal, than patients switching from Methadone. It had been anticipated by several interviewees that Methadone patients would struggle more with the transition, than those already prescribed oral Buprenorphine. Indeed, in one prison, for example, every OST patient who had switched over from oral Buprenorphine to Buprenorphine then reverted back. When asked if they could explain why this might have happened, healthcare interviewees suspected that these patients may have been involved in diverting their OST prescription, although no evidence was reported that this was the case. The annual Addiction Prevalence Testing, which involves voluntary testing of people being admitted to or exiting custody in Scotland during one month of the year for the presence of illegal or illicit drugs, gives some indication of the prevalence of the illicit use of Buprenorphine by people in prison. For example, of the 522 tests carried out on liberation in 2018/19, 26% were positive for illegal drugs, of which Buprenorphine was most commonly detected¹⁵.

Aside from patient experience, there were some concerns about the logistical implications of continuing to prescribe Buprenorphine to OST patients in prison and then after liberation. Concerns were voiced by several healthcare interviewees about the implications for throughcare of starting someone on Buprenorphine while in custody if they were then unable to access it in the community. Uncertainty about continuity of prescribing of Buprenorphine once a patient was released from prison raised questions from some healthcare interviewees about the ethics of switching patients to different OST while in prison and them possibly having to switch again after they were released. It was felt that this might be disruptive to patients' recovery and

¹⁵ <https://www.scotpho.org.uk/population-groups/prisoners/data/prisoner-health/>

resettlement in the community, particularly if they had been stable on Buvidal before their release.

Additionally, it was described that continuity of supply could have particular importance for prisons which house national populations, such as Glen Ochil or Cornton Vale, where people are liberated to communities across Scotland. Uncertainty was also voiced by several interviewees about how the financial costs of prescribing Buvidal would be met going forward. In several cases, it was noted how Buvidal is considerably more expensive per dose than either sublingual Buprenorphine or Methadone, and they were unsure whether further funding was available. Despite concerns about the initial outlay for prescribing Buvidal, it was widely believed that having more OST patients on Buvidal would save money in the longer term because it could free up resources, lead to wider health benefits, and potentially improve outcomes for prison leavers and increase safety for people living in prison.

3.2 Impact on prison operations.

All six GiCs were clearly in favour of Buvidal being widely used in prisons and mostly expressed enthusiasm for the Covid-19 contingency programme. For them, the arguments for using Buvidal in prisons for the benefits of patients, staff and the effective function of the prison were well established and they were ready to respond operationally.

The accounts from GiCs of prisons where there is a significant proportion of people on daily OST illustrated the major impact it has on almost all aspects of prison life. The time taken up by OST not only means prison staff are unavailable for other roles, but patients cannot start to engage in other activities until they have received their prescription. One GiC referred to daily OST as having 'snarled up' the daily routine in prisons. Buvidal could be a 'game changer' for individual establishments and the wider operational effectiveness of the prison system.

The demand placed on SPS resources by daily OST can be seen from figures submitted to the Scottish Government by SPS for this evaluation, which showed the number of staff and length of time taken in supporting the administration of OST on 13th August, 2020 on a daily basis. All fifteen prisons submitted data, however, due to possible inconsistencies in the data between institutions a break-down is not included in this report. The figures provided do give a good indication, however, of the demand placed on SPS staff supporting the administration of OST in Scottish prisons. Whilst in some prisons administering OST took less than 30 minutes in others it took up to 9.5 hours of staff time per day. The numbers of staff involved also varied from 3 or fewer staff in some prisons, and up to 20 staff in others. The time taken aligned with the numbers on OST in each prison.

According to all of the GiCs, the Buvidal programme had so far had minimal observable impacts on SPS operations, such as reducing the amount of staff time spent on supporting the administering of OST. Principally this was because insufficient time had elapsed to assess impact and only an extremely small

proportion of the overall population on daily OST had switched to Buprenorphine. Given the changes to prison regimes as a result of Covid restrictions, it was also hard to compare what impact Buprenorphine may have had on the normal prison routine. The lack of observable impact arising from Buprenorphine on prison operations was a source of frustration for most GPs. Several repeatedly expressed disappointment that implementation had not been swifter or more widespread in their establishment due to the approach and pace of implementation taken by the NHS. However, GPs anticipated that the Buprenorphine programme could have the following benefits for prison operations:

- Reduce the bullying associated with the illicit exchange of diverted OST and the availability of OST drugs as a commodity in prisons.
- Hugely reduce the staff time and the pressure involved in administering daily OST.
- Resources previously used to administer OST could be redirected to case management activities.

A fuller understanding of the impact that Buprenorphine may have on prison operations will only become clear if more patients switch and the burden of administering daily OST is reduced.

3.2.1 Impact of Buprenorphine on diversion and non-medical use of OST

When first conceived, this evaluation sought to assess diversion and other non-medical use of Buprenorphine and the possible impact on the risk of violence compared to other forms of OST in custodial settings. Every healthcare interviewee and all GPs acknowledged that diversion arose when delivering OST in prisons, and the existence and harmful effects associated with diversion in prison settings, which aligned with descriptions in other research¹⁶. However, this evaluation is unable to demonstrate that Buprenorphine prescribing had any impact on the issue of diversion, diversion-motivated bullying or risk of violence. This is for several reasons. Firstly SPS's Public Protection Unit, which is responsible for intelligence gathering about the prison population, does not report on bullying/intimidation relating to OST as a matter of routine, and such data was not accessible within the time frame of this evaluation. Secondly, and as was raised by several interviewees, this evaluation took place during the restricted regime implemented by SPS in response to Covid-19. This meant that the movement of people within prison has been severely restricted and was felt to have curtailed many of the opportunities for bullying and reduced the dealing of illicit substances .

What this evaluation can say is that no incidences of diversion were reported among Buprenorphine patients and healthcare interviewees were confident that diverting Buprenorphine would be impossible. Previous research has highlighted that decisions about which OST treatment options to use in prisons requires careful balancing between issues of treatment effectiveness with concerns of prescription diversion

¹⁶ Sindicich, et al. (2016). Patient Motivations, Perceptions and Experiences of Opioid Substitution Therapy in Prison. *National Drug and Alcohol Research Centre, University of New South Wales.*

and misuse¹⁷. Buprenorphine would appear to offer considerable treatment benefits while reducing concerns about diversion and misuse. However, a clearer sense of the potential impact that the wider prescribing of Buprenorphine may have on OST diversion in prisons will only be understood over the longer term and once prisons begin to resume their normal regimes.

An issue related to diversion that may have some impact on future prescribing of Buprenorphine was the seeming reluctance of OST patients currently on oral formulations of Buprenorphine to switch to Buprenorphine, and the seemingly higher proportion of Buprenorphine patients who transitioned to Buprenorphine but then reverted back to their previous OST. When asked if they could account for why this was, the most common reflection from healthcare interviewees was that these patients were involved in diverting their OST – either to sell or as a result of bullying - and it was highlighted that illicit Buprenorphine has a high value in prisons. The diversion and misuse of Buprenorphine by people in prison with a history of problem drug use has been reported in past research from England¹⁸. The role of OST diversion in influencing patient decision-making about their choice of treatment could be explored in future research.

3.3 Impact on health service operations

Every healthcare interviewee saw benefits for patients and healthcare services from prescribing Buprenorphine and wanted the programme to continue. Indeed, most said they would like it to become the 'first line' treatment for OST patients in custody. Healthcare staff highlighted that administering daily OST had a clogging effect on resources, similar to the views of GICs, and the amount of time spent each day issuing OST was not felt to be an effective or efficient use of staff time.

As with prison operations, healthcare interviewees had not seen any substantive impact from prescribing Buprenorphine on prison health services. Again, this was because of the small numbers of Buprenorphine patients. However, it was anticipated that benefits would arise should Buprenorphine continue. These included reducing the amount of nursing staff time spent administering OST and freeing up staff to deliver other health patient focussed services to people in custody. Examples of additional health services included a wider range of clinics for OST and non-OST patients, and increased harm reduction and recovery focussed work.

In some cases, Buprenorphine had created additional work for health centres, including staff training. It was strongly felt that Buprenorphine would likely lead to savings on staff time and resources once a patient was stable, with health centre staff describing that administering Buprenorphine had been straightforward. However, switching required an initial increase in workload for each patient. This included identifying eligible

¹⁷ Tompkins, et al. (2009). Exploring prison buprenorphine misuse in the United Kingdom: A qualitative study of former prisoners. *International Journal of Prisoner Health*, 5(2), 71-87.

¹⁸ Tompkins, et al. (2009). Exploring prison buprenorphine misuse in the United Kingdom: A qualitative study of former prisoners. *International Journal of Prisoner Health*, 5(2), 71-87.

patients, consultations and discussions with them about Buvidal, possible additional support if a patient experienced withdrawal symptoms prior to starting or needed support while they were reducing their current Methadone dose to the required level, support to help patients to adjust to Buvidal, and possible top-up injections.

Some concerns were raised about how the changes to administering OST would work from an operational perspective, particularly if the number of Buvidal patients numbers increased. An issue raised was about how increased numbers of patients having to be individually escorted to the prison health centre for their Buvidal injection would be managed, versus the current administration of large numbers of oral doses of OST from hall dispensaries.

The increased staff resources to support patients transitioning to Buvidal and logistical concerns raises questions about the efficacy of Buvidal as a contingency response to Covid-19, particularly in prisons with larger numbers of OST patients. Allied to this, there were some concerns about the guidance issued by the Scottish Government, particularly in relation to how Buvidal would be implemented from a logistical perspective. While it was felt that the clinical guidance was sufficiently clear, some health centres were uncertain about particular issues, such as would patients need to be escorted to health centres, or could it be administered on the halls in the same way as some OSTs. From the point of view of several healthcare interviewees, the guidance issued would have benefited from wider consultation with prison healthcare centres to create more actionable and nuanced guidance that was better suited to the prison setting. The pace at which contingency plans were produced for Covid-19 was a factor here, and the process followed for this guidance, through the Chief Medical Officer clinical cell, was the same as for other rapidly produced guidance in the early stages of Covid-19, where there was reduced opportunity for consultation.

4. CONCLUSIONS

4.1 Bupropion in Prisons as a Covid-19 Contingency Measure

The data available for this evaluation has shown that almost 20% of eligible patients were OST transferred onto Bupropion. While this might seem like a small proportion, there were several factors which may have limited uptake. These included, a seeming uncertainty among patients themselves about starting a new treatment and different Health Board responses to the Scottish Government request. It is encouraging to note that very few patients who switched to Bupropion then reverted back to the previous OST, based on the data available.

From a qualitative perspective, interviewees had mixed views on the efficacy of a rapid introduction of Bupropion as a contingency response to Covid-19. Reservations were mostly expressed by healthcare interviewees; whereas GICs were fully supportive. Several healthcare staff felt that there were ethical questions raised by switching patients onto a different OST for a period of only up to four months if they then might have to be moved back again, particularly if patients did not want to change.

It is difficult to assess the efficacy of Bupropion as a contingency response to Covid-19 because one of the problems it was intended to solve (i.e. ensure continuity of OST in the event of a large number of people living in prison being infected or wide scale SPS or healthcare staff absence) had not occurred at the time of this evaluation. Infection rates among people in prison in Scotland have remained low and staff absence rates, whilst higher than normal, have not fundamentally compromised prison operations or healthcare services. However, this evaluation has identified areas of learning and reflections which allow some conclusions to be drawn about the efficacy of Bupropion as a Covid-19 response, and may prove useful in the event of future outbreaks within prisons. Recent outbreaks at HMP Low Moss and HMP Barlinnie are a reminder of how easily Covid-19 can be transmitted in the prison environment.

Key lessons from evaluating Bupropion as a contingency response to Covid-19 are around the timing of the request and guidance from the Scottish Government, and a recognition of the logistical challenges of making changes to OST provision in a short period of time. Although switching to a form of OST which removed or reduced interactions between patients and healthcare staff, at a time of potential operational risks from high rates of staff absence, makes logical sense, to do so during a pandemic presents logistical challenges. For example, another OST contingency option considered by the Scottish Government was to provide pre-measured daily doses of Methadone, which could be administered by non-healthcare staff, through the current national pharmacy contract for prisons with Lloyds Pharmacy. However, while Lloyds indicated they may be able to do this on a prison by prison basis, they did not have the capacity to provide this level of service across the whole estate at the same time. Further, this may only have been

possible in some of the smaller prisons. In the case of Buvidal, transitioning potentially hundreds of people, from May 2020, presented its own logistical challenges at a time when OST contingency measures based on existing treatments had already been in place in Scottish prisons for several weeks. This conclusion is derived from several observations.

Firstly, there was a degree of unfamiliarity with Buvidal and no pre-existing localised systems in place to deliver the treatment. Prison health centres proved themselves adaptable to be able to support a third form of OST, which sometimes increased workloads and, in many cases, came after they had already implemented localised OST contingency plans. Secondly, whether prison health services would have had the capacity to support switching potentially hundreds of OST patients to a new treatment is unknown. Lastly, it would appear that the lead-in time and additional clinical support and monitoring required to transition some Methadone patients from daily OST onto Buvidal had not been fully appreciated when the Scottish Government guidance was issued. It can take several weeks for patients to switch over and requires several points of contact with healthcare services, in addition to continuing their daily OST. How this process could have been managed in the event of a large-scale Covid-19 outbreak in a prison is uncertain.

4.2 The future potential of Buvidal as an OST for patients in custody.

Following this research there is now much increased knowledge about Buvidal across prisons in Scotland. A strong sense of enthusiasm for the treatment from healthcare staff and GiCs was evident from the research. This level of buy-in and strong appreciation for the seemingly wide-ranging benefits for transitioning an increasing number of OST patients to Buvidal would suggest that uptake could grow in the coming months.

Despite some concerns raised about implementing the measure during the Covid-19 lockdown in Scotland's prisons, healthcare and SPS interviewees were unanimously positive about the longer-term benefits of prescribing Buvidal. Indeed, the transformative potential of Buvidal for OST provision in Scottish prisons was stressed repeatedly by healthcare professionals. These views were based on observations of changes seen in patients and they were closely aligned with the perspectives of the 2 Buvidal patients interviewed for this research. On this evidence, Buvidal presents a treatment option which can enable people in prison to more fully engage with purposeful activities in custody and which may lead to improved healthcare outcomes after liberation. The potential to improve the lives of OST patients in the community in Scotland was highlighted in a pilot study with patients from several Community Care and Treatment teams in Glasgow¹⁹. Patients overwhelmingly reported the positive impact of avoiding opportunistic drug use via daily pharmacy contact with drug using associates. Additionally, a significant increase in engagement with structured activity was demonstrated.

¹⁹ Middleton et al., (2019) Improved recovery outcomes with injectable prolonged-release buprenorphine in an opioid agonist therapy clinic in Glasgow. Available at: <https://www.addiction-ssa.org/wp-content/uploads/2019/11/MiddletonL-Improved-Recovery-Outcomes-With-Injectable-Poster-Oct-19.pdf>

From an operational perspective, it was strongly felt that having more OST patients in custody on Buvidal would free up NHS and SPS resources and lessen the disruptive impact that OST medication rounds have on the day to day activities in Scotland's prisons. Spending less time supporting OST could free up SPS operational staff to focus more on case management activities which may lead to improved outcomes. For the NHS, spending less time each day administering OST could allow health centre staff to deliver more clinics and harm reduction work with patients including those not on OST.

Whilst this evaluation was primarily concerned with exploring the impact of Buvidal in prison, the implications for throughcare were clearly a high concern for interviewees and part of the decision-making processes for Health Boards. The harmful and scarring effects of imprisonment have long been established, however time in prison can provide an opportunity to engage vulnerable people with health services²⁰. Interruptions to key support for people leaving prison, such as OST prescriptions, could undermine progress people have made in custody in terms of their addiction and recovery and may increase the risks of them reoffending and returning to prison.

In light of the decision by The Scottish Government to continue supporting the provision of Buvidal to eligible OST patients in prison until the end of the 2020/21 financial year, Scottish Government Health and Social Care Analysis is currently undertaking a further piece of qualitative research. This research is seeking to gather more in-depth and richer understandings of patient experience and is based on interviews with Buvidal patients currently in custody, which only formed a small part of this rapid-evaluation. It is intended that this further research will include the perspectives of male and female Buvidal patients and the views of those Buvidal patients who are approaching release. It is anticipated this research will report towards the end of the 2020/21 financial year.

²⁰ Condon, L., Gill, H., & Harris, F. (2007). A review of prison health and its implications for primary care nursing in England and Wales: the research evidence. *Journal of clinical nursing*, 16(7), 1201-1209.



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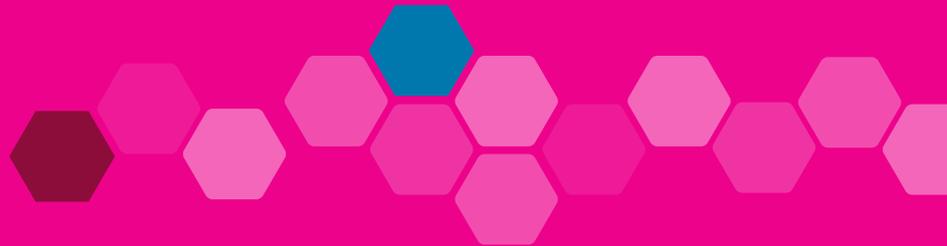
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