**Pharmacist Administration of Long Acting Injectable Buprenorphine (LAIB) by Community Pharmacist in NHS Grampian – Evaluation**

## Background

Buvidal was introduced and licensed as Long Acting Injectable Buprenorphine (LAIB) for the treatment of opioid dependence in 2019 and approved for use in Scotland by SMC[1]. In 2021 the Medication Assisted Treatment standards for Scotland were launched[2]. These standards call for all treatment options, including LAIB, to be made available to all patients where clinically appropriate for the individual.

Aberdeenshire covers an area with a large geographic spread, remote populations and variations in the density of people requiring support for problematic drug and alcohol use. Staff from specialist drug and alcohol services ("specialist services") can travel to several clinic locations in a week, most commonly in areas with lower numbers of people requiring support. There can be large distances between clinics making it more difficult to perform "in-person" tasks such as medicines administration. This is a disadvantage to patients if they are unable to attend the allocated appointment. Combined with medicine administration being a completely new and additional task for the specialist service, the administration of LAIB was subsequently increasing workload pressures. Community pharmacies ("pharmacies") are spread across the region and are present in most communities making them easily accessible to most. Many have staff already trained and experienced in working with patients prescribed opioid substitute treatment (OST) and in administering injections such as flu and travel vaccines. With appropriate upskilling, this puts them in a good position to administer LAIB.

Partners in Aberdeenshire agreed to conduct a test of change assessing the feasibility of community pharmacists administering LAIB. The aims were to make access to LAIB more equitable and easy for patients, to support specialist service workload and reduce the potential for missed administration and subsequent default from treatment. Pharmacies were selected by location, staff skillset i.e. delivering OST and trained in flu/travel vaccination, capacity and willingness to take part. Five community pharmacies in Aberdeenshire were selected to participate.

The test of change was led by the Grampian specialist pharmacists in substance use ("specialist pharmacists") and Pharmaceutical Care Services (PCS) pharmacist with input from the MAT standards implementation (MIST) and MIST Q (tasked with ensuring lived and living experience are core to any development) teams. Delivery was supported by staff from across Aberdeenshire specialist services. Participating community pharmacy staff were required to attend an evening training session. Staff from the specialist service were also encouraged to attend to ensure a collaborative approach. The LAIB currently on formulary in Grampian is Buvidal® therefore Camurus provided training on the product and its administration. The specialist pharmacists provided detail on the test of change and processes with the PCS pharmacist providing information on the service level agreement (SLA) that had been developed[3].

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Shadowing opportunities were offered by specialist service nurses to provide access to practical experience in the administration of LAIB. Camurus also offered onsite support in the pharmacy if requested. This combination of online and in person training was designed to ensure pharmacy staff were competent and confident in the administration of LAIB, associated assessment and paperwork.

## Aims of the Test of Change

1. Develop and evaluate a model for pharmacy administration of LAIB to assess feasibility, acceptability and impact.
2. Inform future planning on administration of LAIB and possible expansion of the model across Grampian.

## Evaluation Method

This evaluation is a 3-fold qualitative assessment covering; i. patient, ii. specialist service staff and iii. pharmacist opinion. The test of change ran for a period of 6 months before an interview process was commenced. Interviews with pharmacists and specialist service staff were conducted in May/June 2022. Patient interviews were pursued until September 2022 in a bid to encourage further uptake. Individual questionnaires were developed for each of these 3 groups. Questionnaires were designed and approved by the core group described above. Interviews were undertaken by individuals external to NHS Grampian specifically the lead pharmacist for NHS Lanarkshire addiction services volunteered through their role within the MIST team (pharmacist interviews), a national MIST Q officer (staff interviews) and a trained MIST Q locality interviewer (patient interviews). The use of external assessors aimed to remove bias which may have occurred if local staff know to interviewees were used. Interviewers were also involved in finalising the questionnaire design. For patient interviews, the key working nurse agreed to seek consent for contact from participating patients. Patients were asked if they would prefer to conduct interviews face to face or by phone with all preferring by phone. They were asked for consent to share a contact number with the MIST Q locality interviewer. The locality interviewer was supported throughout by a national MIST Q officer with regular communication with one of the specialist pharmacists. A process was agreed upon whereby completed interviews were entered anonymously into Microsoft Forms and any personal details destroyed to protect confidentiality.

## Results

### Pharmacist Interviews

5 community pharmacies in Grampian received training to deliver the service. From these 11 community pharmacists were identified for interview. The interviewer agreed on a suitable date and time with each pharmacist.

10 interviews were completed with one failed contact. 1 of the 10 interviewees only commented on the SLA content and financial aspects as they had been trained, but had not administered LAIB. A further 3 interviewees had not administered LAIB at the time of interview as no patients had been transferred at that point. They commented on training and other theoretical aspects. 2 of those interviewed did not

comment on the financial aspects as this did not form part of their employed role in the pharmacy.

Pharmacies reported commencing LAIB administration from September 2021 onwards following the completion of training and shadowing that started May 2021.

Training

All 5 pharmacies had a minimum of 2 pharmacists trained and able to administer LAIB. It should be noted that this did not mean that there was always double pharmacist cover during clinic times. Some pharmacists may have had to undertake this task in addition to other competing pharmacy tasks on some days. All pharmacists were employed pharmacists or owners. No locums were trained.

All 10 pharmacists responded that the training provided seemed adequate to enable service delivery and administration of LAIB. There was a varied response to how training was delivered with some commenting that the online component was excellent, others saying they would prefer more face-to-face and one commenting positively on being able to shadow a nurse. From the responses given, the only aspects identified as potential areas for improvement were the time from delivery of training to first administration of LAIB (which was felt to be too long) and more training on patient assessment if restarting a LAIB. The majority agreed that training was complete and sufficient. A flexible approach to shadowing had taken place taking place either on-site at one of the drug and alcohol service clinics or within the pharmacy. Shadowing was offered by a number of nurses at different sites which was not considered as part of the study but may have led to different levels of experience e.g. number of administrations observed, technique of nurse etc. All but 2 pharmacists had shadowed nurse administration of LAIB.

Confidence of Pharmacists

Prior to the administration of LAIB, most pharmacists interviewed reported being “quite confident” in the assessment of the patient. This improved to “very confident” after gaining experience in administering LAIB. Similar increases were seen when considering confidence in administering LAIB and providing patients with advice on the effects and side effects of LAIB.

At the time of the interview, none of the pharmacists reported involvement in assessing the need for dose changes and 2 responded that the specialist service had made any necessary changes.

Starting patients on LAIB

7 pharmacists responded to this section as the others had yet to administer LAIB. All 7 reported that the specialist service had been in contact in advance with patient information and agreed on details of administration before the patient attended. The consent form was provided on 2 occasions by the specialist service, all others required completion in the pharmacy. The majority but not all patients were already known to the pharmacists however some were completely new to the pharmacy. In these cases, patients were introduced to the pharmacy by the specialist service. No

issues or problems were reported when taking on patients new to the pharmacy. During the handover period to pharmacy administration there were no issues reported in arranging appointments therefore transfer appeared smooth.

Engagement with Prescribing Service

All respondents agreed it was part of the role to encourage the patients to continue to engage with clinicians from specialist services and they continued to do this.

Prescriptions and PSDs

Pharmacists responded that they contacted the patients' prescriber as and when required. The prescribers contacted were either doctors or nurses. They stated that there were seldom issues (2 occasions reported) which needed to be resolved due to errors with prescriptions or PSDs. All pharmacists were satisfied that the process allowed adequate time to order the medication ahead of 1st administration following the arrival of the prescription and PSD. 2 pharmacies reported that they now keep a stock of LAIB. Pharmacists were satisfied that prescriptions and PSDs were written in a way that allowed flexibility in administration within the therapeutic window of +/- 2 days for weekly and +/- 7 days for 4 weekly products. They reported PSDs were either e-mailed or handed in, in written form in advance.

The Standard Operating Procedure (SOP)

All pharmacists reported the SOP was either "very easy" or "easy" to follow. There was one comment that the SOP was lengthy and could be improved by shortening and using bullet points. One reported that there was no mention of the Patient Medication Record (PMR) and what should be recorded on it.

Establishment of Clinics in Pharmacies

Most pharmacies used a fixed appointment system noting this was necessary due to other uses of the consultation room. One pharmacy offered the service in a more ad-hoc nature. The frequency of set clinics varied from weekly to fortnightly or monthly determined by the number of patients attending. All pharmacies had a system in place to remind patients in advance of appointments. Some set up automated text reminder systems attached to their clinic bookings. All reported a system to manage non-attendance and missed doses which most commonly involved telephone or text reminders being sent to the patient's phone. Most reported the time for the administration and associated paperwork to take 15-20 minutes. Some opted to prepare paperwork in advance, while others completed it during the clinic. All reported that with experience the process got quicker. Clinic appointments for LAIB were most commonly planned when 2 pharmacists were working, although on occasion, some reported they had managed to deliver the service when a single pharmacist was working due to leave or absence. No issues were experienced due to this in the test of change period and appointments for LAIB had been considered and managed in the same way as any other clinical consultation. No pharmacists reported being charged an additional cost for amending indemnity insurance to include LAIB administration. All reported that the money provided to establish the

service had been adequate to cover any expenses incurred during the set-up of the service.

## Clinical Checks and Governance

The community pharmacies reported not checking the Emergency Care Summary (ECS) of patients in the majority of instances. The reason given for this was existing notes from the GP or specialist service and the majority of patients already attended the pharmacy. Only one instance of reporting a clinical issue was expressed and this was resolved with communication with the key working nurse. During the test of change, there were only 2 pharmacist reports of LAIB dose changing. The need for a change was identified by the patient or key worker rather than the pharmacist. On one occasion this resulted in a communication issue where the dose reduction was delayed by 4 weeks but this was resolved satisfactorily. Pharmacists could see that the LAIB was recorded on the patient's ECS in most cases. None had needed to record or report any adverse effects from LAIB.

## Administration of LAIB in the Pharmacy

Only one report of an issue during administration was highlighted. This is related to the low weight of a patient making administration trickier due to less subcutaneous tissue being available to pinch. This was addressed by looking at the different licensed injection sites to find one where more tissue was available for injection. The only adverse effect mentioned by pharmacists was pain at the injection site, but this appeared transitory and quick to diminish. Only one pharmacist reported giving a patient their first dose of LAIB, and one reported restarting two patients. Both felt confident in doing so when needed and stated they had enough information to do so. There was one report of administration being withheld which was due to the patient wanting to stop treatment. There were no reports of patients requesting a return to the specialist service because they were dissatisfied with the service. Reasons given for discontinuation of pharmacy administration that did occur were to commence a planned detoxification from OST and following an unplanned cessation of treatment. Respondents stated that no part of the process required changes or could be simplified. All participating pharmacists reported that their relationship with patients to whom they administered LAIB to had changed in a positive way with better communication and relationships, happier to attend the pharmacy, less stigma and a more positive and rewarding service for both.

When reviewing the activity at the pharmacies, most had been trained over the summer of 2021 but the first patients were not until September 2021 to December 2021. Most pharmacies have 3-4 patients currently attending at the time of the questionnaire; however, one pharmacy was much busier with about 10 patients on LAIB. In total, 20 patients were transferred for pharmacy administration. As a result, most of the pharmacies have administered multiple doses now and felt they were well experienced. The vast majority of patients were prescribed 28-day formulations. A minority received a 7-day formulation and fewer still supplementary 8mg doses.

Those who felt qualified to comment on payment terms agreed that the current remuneration level was in the main fair and covered the ongoing costs, although one commented that the training costs should be on top of the fee provided.

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All respondents felt that a community pharmacy is a sustainable option for the administration of LAIB and this is a future venue for wider administration.

Additional comments received included:
- "Need retrained as so long between training and administration" (no patients yet)
- "Could do more if more staff involved"
- "Good and enjoyable service"
- "Depends on Staff and facilities. Personal care and relationships improved."
- "Need for refresher training online or face to face"

A number gave positive messages
- "More passionate and rewarding"
- "Would like to have more patients on LAIB"
- Many respondents reported patients seeming more positive

**Drug and Alcohol Service Staff Interviews**

6 staff from Aberdeenshire drug and alcohol teams participated in the review. 3 nurse independent prescribers, 1 nurse, 1 GP with specialist interest and 1 consultant psychiatrist. All had previous experience with prescribing and/or administering LAIB at the outset of the pharmacy test of change.

Documentation and Communication

All 6 staff interviewed agreed the SOP was easy to follow. 5 felt that it covered everything required and the outstanding staff member did not feel in a position to comment. 5 members of staff had completed PSDs for the pharmacy and all 5 reported this was "very easy" and contained all required information. 2 staff members suggested improvements which consisted of removing duplication of the body map of injection sites and simplifying the format and completion process if possible. The main suggestion to facilitate this was making an electronic version. This would also allow easier transfer across Aberdeenshire. The time to complete and send documentation did not cause any specific issues.

Methods suggested for communicating information on prescribed medication included; an action request form (a local document), a copy of the emergency care summary, email contact, letter or verbally. 5 staff members reported using a mixture of the above to communicate, 1 member of staff reported that they had not sent this type of information. Staff responded that all GPs were informed of patients' move to pharmacy administration and this was either by letter (electronic) or through direct recording on Vision or EMIS with some doing both. One responded that this did not apply to them.

In terms of feedback from the pharmacy, the process required that pharmacies emailed back a copy of the PSD by email. 3 reported they had received this, 3 reported they had not (1 had not sent a PSD so would not have expected to receive one). 3 reported that receipt of the PSD was helpful. When asked if anything could improve the communication process from the pharmacy following administration 5

responded “no” with most saying it worked fairly well. Consistency in response was suggested by one and one other suggested having pharmacies on the same IT system (specified Vision which is the prescribing system used by the specialist service and most GPs) would be good to save duplication.

5 staff members reported amending a patient’s dose during the test of change with all reporting this was easy to do. The same was said for top-up doses. 1 person did suggest the prescription process was cumbersome and asked if it could be improved.

There were no occasions reported where the specialist service had to step in to administer the LAIB due to a pharmacist not being available e.g. absence. As noted 1 patient stopped attending the pharmacy for LAIB following a request to change back to an orally administered product.

A concern raised by staff ahead of the test of change was the likelihood that patients would reduce their engagement with the service if not coming for their injection. This was not the case during the period of the test of change. The only additional comment recorded here was positive “...this actually improved engagement and available time to discuss other things than administering medication”. They were then asked about any positive or negative impacts of pharmacy administration they had observed. Responses were as follows.

Positive impacts on patient care

- “Convenient for patient. Benefits in time and workload of Mental Health Nurse and team.” Stated that it was probably too early in the pilot to make any accurate positive or negative opinions
- “Patient choice and flexibility. Fact that administration of medication, which is an involved process allows time with patient to discuss and focus on other aspects of wellbeing”
- “Good working relationship with [] pharmacy makes this process work really well. Improves patient options and choice. Spreads workload and allows more time to be devoted to other patients requiring higher levels of support and care”
- “An example. One patient is in full time work. Pharmacy administration allows him to make appointments on a Saturday which saves him having to take ask for time off from work for appointments during the working week.”
- “Has allowed quicker prescribing and reductions in waiting times, staff numbers allowing. Increases number of patients being supported appropriately and receiving the MAT that they request\require. Spreads and allows time to nursing staff and duties by freeing them on administration of Buvidal and allows time to other duties. Allows patients options of six days to fit in appointments other than meeting nursing staff availability of once per week.”
- “Over 90% is on a positive basis”

Negative impacts on patient care.

- 2 interviewees stated “none”
- “Negative. Concern in the drop in review been carried out by MHN [Mental Health Nurse] or prescriber and in following patients progress.”

- "Do not see negatives. If any they are far outweighed by the positives and benefits to patient."
- "In certain circumstances, one specific, affords patient an unsafe level of complacency and can lead to missed appointments as thinks safe. That said has never extended beyond the seven day requirement."
- "The other would be issues arising from complacency in the medication being long lasting so that appointments may be missed and in certain cases, the length of time between appointments can cause concern"

When asked if pharmacy expansion would be of benefit and whether pharmacy was an appropriate venue, all 6 reported yes to both with specific comments as follows.

- "This pharmacy involvement assists in the implementation of a number of the MAT standards other than the operatives in MAT & of involving primary care."
- "It works really well in my area and there is a really good relationship with nurses and pharmacy. There are masses of benefits in time spent in the prescribing and administration process which frees time for other duties and patient care. Spreads workload and confidence that the patient is receiving appropriate care. Patients who have transferred to Buvidal state that it has changed their lives and outlook"
- "Greatly improves options for patients and is more convenient by administration being done at local pharmacy"
- "This is especially so taking the premises, staffing and co-operation availed at [pharmacy name]."
- "The process SOP \ PSD and communications and good relationships with CPNs and pharmacy staff is really working. I can't wait to see this expanded as there are so many benefits to be gained by firstly the patient, but also clinical and service staff in this work being carried out in and by pharmacies. I would prescribe \ recommend that this be availed to everyone, taken that they are fully informed and advised and that is their fully informed choice"
- "Not all pharmacies are suitably provided with consultancy rooms etc. and suitably and appropriately trained to administer this medication"
- "Is often dependent on available space and staffing at pharmacies. Because of locality and population dispersal often smaller premises in towns."
- "Not all areas in the shire and elsewhere will be so well suited to adapt to the Buvidal process considering size of pharmacy, resources and staffing levels"

Staff were then asked for any final thoughts on what might improve the service. 2 reported "nothing". 3 mentioned making this service more widespread both locally and nationally.

- "... the pilot and process is generally successful. Locations do not and cannot match the demand i.e. small venue and staffing. Need to look to improved ways to engage pharmacies"
- "Additional training, information, advice provision to pharmacy staff and management to educate exactly what all is involved and the purpose of Buvidal on and in an individual's recovery process. Increased incentives for pharmacies."
- "Because of logistics and geography having to have scripts signed by GP in Fulton Clinic [Aberdeen city] then posted out to shire as there is not suitable office base to carry out this tasks. This needs sorting as it is greatly extending timing in getting patients receiving the medication they need"

**Patient Interviews**

The views of patients engaged in the service have potential to supersede those of staff, as their views are null if patients are not satisfied or happy to engage with this service. The majority of patients agreed to contact for an interview and provided details. 4 patients ultimately completed the questionnaire. This aimed to assess the quality and value of service provision through questions exploring the knowledge provided and experience of the service.

In terms of treatment options and knowledge, of the 4 patients interviewed 2 had requested the LAIB and 2 had been offered it as a treatment option. All 4 felt they had received enough information on the LAIB to understand how it worked before receiving it. 2 patients had received an alert card for the LAIB, reported carrying it on their person and knew what it was for, 2 patients did not.

3 patients reported a pharmacist was currently administering the LAIB, the other a nurse. All 4 were happy with the professional currently administering the LAIB. When asked to expand reasons given were as follows:

- "Convenience"
- "I know them and am comfortable in the settings."
- "Convenient as they open a Saturday, and nice people."
- "I have been working with the service for some time and feel comfortable with them and their knowledge."

3 of the 4 people reported a different injection site being used for every administration. The main problems experienced at the injecting site were pain and swelling. 2 people reported "other" but this was not expanded upon. Other adverse effects noted included sweating (1), insomnia (2) and other (1). When asked if anyone asked them about any side effects, 3 patients said the pharmacist and 1 the nurse which matches the administrator profile. All 4 reported they were offered advice on these and 3 reported this had helped. When asked whom they would ask for help if they had any issues with their LAIB, 3 reported their specialist service nurse and 1 their pharmacist. Nobody chose the option of the doctor which may be reflective of the key worker they most commonly had contact with being a nurse.

When asked about how things had changed since they had been on LAIB 2 patients noted an improvement, 1 no change and 1 that things had worsened. The explanations were as follows.

- "Stopped me from topping up with other opioids."
- "I no longer have a peak (high) or low mood and am more settled."
- "My sleeping pattern has gotten worse."

In terms of suitability of appointments, 3 patients reported that the appointment time suited them, and all 4 patients reported that they received a reminder and that they knew how to rearrange appointments if needed. There were no suggestions for changing or improving the service.

All 3 pharmacy patients reported being informed what would happen at the pharmacy before moving across. 1 patient remembered going through the consent form, 1 wasn't sure and 1 didn't think they had. All 3 reported having recent appointments and that they hadn't missed any.

In terms of relationship with the pharmacist, all 3 people receiving LAIB from a pharmacist reported no change in their relationship with them. All 3 stated that the pharmacy was a good place to get it with two people stating convenience and one saying it let the nurse see more people.

## Discussion

Results suggest that the initial test of this service worked well with community pharmacists, staff from specialist services and patients universally supportive. Overall the evaluation and feedback were very positive indicating that the model was fit for purpose except for a few practical changes and considerations proposed and some areas for follow-up and clarification.

It is positive that all of those interviewed agreed administration of LAIB in community pharmacies should be rolled out and encouraged potentially making treatment more accessible to patients. A highlight of the evaluation was that participating pharmacists were not only happy to deliver the service but some reported additional professional and personal satisfaction. One had significantly increased their involvement with the specialist service as a result. Pharmacists' perceived improvement in relationships with patients was also notable. The support from the staff of the drug and alcohol services and the majority being positive in welcoming this service and seeing it expand was also clear.

The majority of aspects of the model of training, the SOP and delivery of the service evaluated well with interviews highlighting some minor areas of improvement.

## Conclusion

Evaluation supports this as a good model to explore further and an alternative option for delivering LAIB services for consideration. It is important to acknowledge that number of patients transferred to pharmacies were relatively small and pharmacies were selected on criteria that may have made them good candidates for success. Having a process for continual review and development, as is core to the test of change methodology, is therefore recommended for any future expansion or initiation in other areas.

References

1 - Buvidal SPmC https://www.medicines.org.uk/emc/search?q=buvidal
2 – MAT standards (Overview - Medication Assisted Treatment (MAT) standards - Treatment - Substance use - Our areas of work - Public Health Scotland https://www.gov.scot/publications/medication-assisted-treatment-mat-standards-scotland-access-choice-support/pages/3/ )
3 – NHS Grampian Buvidal Administration Service Pilot Service Level Agreement

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