

Medication Reminders and Dispensers

Briefing Note

Nov 2021

Medication Reminders

Please note, a number of suppliers provide medication reminders and dispensers, and the TEC programme is not endorsing a specific supplier. HSCPs should explore options and identify the right solution to meet their specific needs.

Technology-enabled medication reminders support people to take their prescribed medication at the same time every day. There are also technology-enabled options available for dispensing the medication.

If a person is unable to manage their medication independently, a medication reminder may be an option to consider. Medication reminders can potentially support people who forget to take medication at specified times, don't take the right medication, or take too much.

Medication reminders can be set up using technology that the person already has such as a mobile phone or smart watch, a smart speaker (for example, Amazon Echo/Google Nest), mobile apps, by providing medication reminders using a telecare/community alarm unit, or a timed medication dispenser which can also be linked through the telecare/community alarm unit to an alarm receiving centre.

The effectiveness and safety of medication reminder solutions will depend on the level of understanding of the supported person and the type of reminder put in place. Medication reminders may not be the right solution for people with a moderate/severe dementia diagnosis.

Smart Mobile Phone

A mobile phone can be a quick and easy solution for some people. Using the phone's alarm settings to set reminders at times when medication is due to be taken can provide a discreet alert. For some people, using a mobile phone will help ensure a reminder is received wherever they are.

Smart Speaker (e.g. 'Alexa')

A smart speaker can be set up to prompt a voice message at specified times of the day as a reminder to take medication. This provides another quick and easy solution especially if a person spends most of their time at home, and they already have a smart speaker.

Mobile Apps

Mobile Apps can be a solution for people who are able to use a smart phone and are able to dispense their own medication. Apps can be set up to personalise the reminder routine with the names and shapes of the pills required.

Good assessment is key to finding a safe and effective technology-enabled solution for managing medicines. **Some key considerations for assessment are set out in Appendix One.**

The supported person (or a suitable welfare proxy if required) should be central to the assessment process. A plan of care should be agreed, which

details the roles and responsibilities of care workers, the supported person and/or any family members involved. Various professionals with the appropriate knowledge and skills can undertake the assessment, including members of the primary health care team, social work staff, or independent care providers (*Care Inspectorate, 2015*).¹

¹ Care Inspectorate - [Prompting, assisting and administration of medication in a care setting: guidance for professionals April 2015](#)

Benefits

- People receive a prompt to take their medication at the correct time (sometimes carers can be running late).
- Valuable for people who need to take different types of medication at different times of the day.
- People are encouraged and supported to self-manage.
- Improved use of resources by decreasing unnecessary physical home care visits to prompt people to take their medication.

Considerations

- Robust assessment of the person's medication prescription, capabilities and needs is central to the success of medication management using technology. A detailed plan of agreed roles and responsibilities is essential.
- Resource capacity is required to review existing homecare packages for medication prompt visits to consider whether technology-enabled support is a safe option.
- If a pill dispenser has been identified, consideration needs to be given to who will fill the device and who will respond if linked to an alarm receiving centre.

Standalone Devices that can be purchased directly from online suppliers: Vibrating Watch and Medication Prompt Reminders

Vibrating watches can be purchased directly from suppliers. This will be a one-off cost, with prices ranging from £30 - £72. The devices can be set to activate at specific times of the day. The two examples below are supplied by a company called Pivotell. More can be viewed by searching medication reminders on the internet.



Stand Alone Device that can be purchased directly via online supplier: Pill Dispenser

Battery operated pill dispensers can be purchased directly from suppliers (below is a dispenser supplied by Pivotell). As this can be used as a stand-alone device it would be a one-off cost when purchased. The pill dispenser is especially good if the person takes multiple medications and the right medication needs to be taken at the right time. The medication requires to be transferred into the pill dispenser by the person/family into the specific time, day, and week slots within the dispenser. Once filled it can be locked to ensure there are no issues with medication getting mixed up or falling out.

If medication is required seven days/week, four times per day the device only requires to be filled once per week.

Using a pill dispenser provides reassurance that you will be taking the correct medication at the right time. The dispenser will alarm with a ring tone to alert the person that it's time to take their medication. They would then simply pick up the device and tilt the pill dispenser, tipping the medication into their hand or a small cup via the dispensing slot.



If dexterity is an issue, a tilting aid can be purchased. The pill dispenser can support self-management of medication and allow the person to remain independent. Costs for pill dispensers range from £95 - £102, with tipper devices costing around £75.

Community Alarm with Recorded Medication Prompt

Enhanced Telecare/Community Alarm units are available that enable a voice message to be recorded in the alarm unit, which will provide an alert/reminder at specified times (daily, weekly or monthly). These activations are to prompt/advise the person that they should take their medication. The message can be recorded by a family/friend/carer (familiar voice) or by the TEC team.

To confirm that the medication has been taken the person would need to have the understanding to press a button located on the alarm unit. Activating this button confirms that the message has been received and medication has been taken. Please note there is no visual confirmation, therefore the success of this solution will depend on the person being able to confirm reliably that the medication has been taken. If the confirmation button is not pressed, a call is sent to the alarm receiving centre (ARC) and depending on the protocol set up (following an initial assessment) a 'missed medication' call will be made by the ARC to the person identified (family/friend/carer) to follow up.



Most Telecare services will supply and install the enhanced telecare/community alarm unit at the same cost as a basic alarm unit (weekly charge applies). Where a telecare/community alarm is already in place the Telecare Service can programme the unit to enable a voice message to be recorded.

Medication Dispenser Linked to a Telecare/Community Alarm Unit

Battery-operated pill dispensers can be supplied by Telecare/TEC service - the same model as detailed above as a standalone device. Pill dispensers can be supplied as a standalone device or linked to a telecare alarm unit to enable a missed medication alarm call to be directed to the alarm receiving centre (ARC) when medication has not been removed from the device at the allocated time.

Prior to the installation of a pill dispenser, an assessment of the person's ability to manage medications should be carried out. As the telecare service provider is not able to fill the dispenser, the person/people who can take responsibility for this need to be identified at the assessment.

If the medication has not been removed from the device at the allocated time the protocol would be for the ARC to contact the identified family/friend/carer (identified at the assessment) to let them know that the person hasn't taken their medication. At the assessment stage the family/friend/carer will have agreed and set-up the response for missed medication calls. Local variation would prevent most Telecare service responder teams from opening/prompting the medication from the pill dispenser.

The pill dispenser is especially good if the person takes multiple medications and the right medication needs to be taken at the right time. Once filled it can be locked to ensure there are no issues with medication getting mixed up or falling out. If medication is required seven days/week, four times per day the device only requires to be filled once per week.

Using a pill dispenser provides reassurance that the person will be taking the correct medication at the right time. The dispenser will alarm with a ring tone to alert the person that it's time to take their medication. They would simply pick up the device and tilt the pill dispenser tipping the medication into their hand or a small cup via the dispensing slot. If dexterity is an issue a tilting aid can also be supplied.

Most Telecare service providers will supply and install the pill dispenser /tilting aid as part of a Telecare package at the same cost as a basic alarm unit (weekly charge applies), or where an alarm is already in place this will be provided as part of the person's current service.

Costs*

- Setting up a reminder function on the person's own phone incurs no cost.
- There are many medication reminder apps that can be downloaded for free.
- Prices for wrist worn vibrating devices range from £30 - £72.
- Medication dispensers range from £95 - £102, with tipper devices costing around £75.
- The weekly costs of telecare service provision vary depending on local area.

* Prices at November 2021

For further information and resources

Please contact: nss.tec@nhs.scot

Case Studies

We asked Telecare Service Providers in Scotland if they used medication dispensers and any if they had any processes, procedures or guidance associated with pharmacies filling them.

East Ayrshire HSCP

Smarts Supports Co-ordinator:

“East Ayrshire medication dispensers are not filled by any pharmacy. If a person has a medication dispenser this has to be filled by family or someone in their support network. Other medication prompts that we use are as follows: -

Medication Reminder Alarm Clock

- Can have up to 6 alarm reminders per day and you can have these as either an alarm sound or as a voice recording. This works well for many people as the clock is small and can sit beside their medication.
- We find that this is very helpful for people who receive their medication organised in blister packs from the pharmacy or for people who take a lot of medication that would not be able to fit in a traditional medication dispenser.
- <https://www.healthandcare.co.uk/memory-aids-and-reminders/your-minder-talking-medication-alarm-clock.html>

Mobile Apps

- For people who are able to use a smart phone and are able to dispense their own medication we sometimes use free apps like Medisafe or Medsmart.
- These apps let you personalise the reminder routine with the names and shapes of the pills required which is very helpful. Medsmart lets you scan the pill boxes to ensure you have the correct item which is very helpful if someone takes numerous different medications.

We have also used some larger reminder clocks as they can be personalised with medication and various other reminders daily. These are harder to buy now for some reason (we did get them from Live Better with Dementia website, but I can't see them there at the moment – the link below is to Amazon but it's just for reference). Our team really like these as the person and their family can personalise the reminders at any time and add in more reminders if required.”

<https://www.amazon.co.uk/Live-Better-Reminders-Dementia-Alzheimers/dp/B083XXPFQZ>

East Ayrshire HSCP

Care at Home Pharmacy Technician:

“We use medication dispensers within East Ayrshire which either the smart support team or I would put in place. There has been no change in policy to allow pharmacy to fill the carousel.

We have a few different options for compliance aids that are provided through smart support. We have medication watches that we can set up with up to six alarms daily. The person can wear them, or I have also attached to things like walking aids.

We have reminder clocks that can be set up with alarms or voice prompts by family - these also have day date and year.

Both these items were purchased through <http://unforgettable.com> and can be used to support compliance devices or pill boxes filled by family. There is also a reminder clock frame that a few families have purchased themselves and this again states day, date, time and year and prompts for medication or to have a drink can be put on them. We also have an increased use of Alexa or Google Mini.”

East Lothian HSCP

“East Lothian Council are using Pivotells. As far as filling them, we are informing family members that they are responsible for filling them, or carers if the care agency are comfortable and allowed to do so. Pharmacies are still not an option for this, less so with Covid.

If the client has a community alarm (certainly Tunstall), we have programmed the Pivotell to the alarm (then to the ARC) to alert if the medication has not been taken.

If a Pivotell (or any other type of medication dispenser isn't suitable), and they have a community alarm, we set up voice prompts through the alarm, alerting the ARC if the voice prompt hasn't been acknowledged.

If the client has an Echo or Google Home, reminders can be set, but obviously, there is no alert to an ARC if they fail to take their medication.”

Different types of pill dispensers:

<https://www.greatseniorliving.com/articles/best-pill-dispenser-for-seniors>

West Lothian HSCP

“Can I suggest having a look at the YOURmeds solution site <https://www.yourmeds.net/>

We are currently using this in West Lothian Council.”

Angus HSCP

“Within Angus we use the voice recording facility within the alarm unit.

Staff can programme the alarm to create voice prompts to encourage a person to take their medication. The person can acknowledge that they have received this by pressing the green function button, which will close the alert down. If after three attempts and no button is pressed, then the alarm will notify the control room advising of a medication prompt and we then have procedures in place to action.”

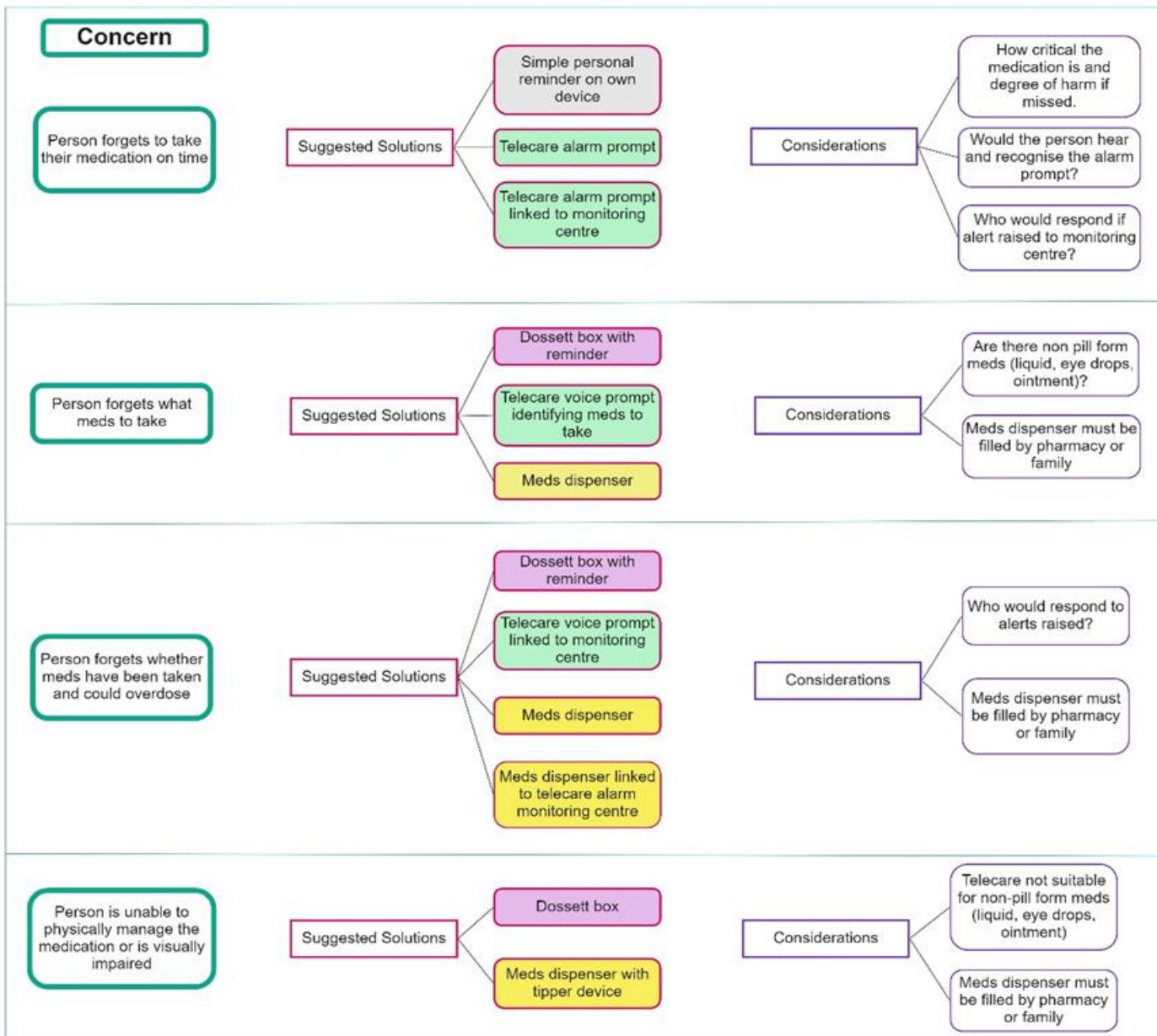
South Lanarkshire HSCP

“We have just taken the decision to stop providing Pivotell dispensers. The dispensers were not linked to the alarm receiving centre and were really used as stand-alone medication reminders. There was no response if medication was not taken, and families were responsible for filling the medication carousels.

The provision of these dispensers is not in line with our medication policy – we would advise staff to request medication reviews where appropriate or to seek advice from community pharmacies who have a range of medication reminding options.”

APPENDIX ONE

Medication compliance assessment



Assessment for technology enabled medication reminders and dispensers aims to identify solutions that can support a person to safely and reliably take their medication as prescribed.

A good assessment will identify a person's needs and risks relating to ordering and collecting medication, and taking medication as prescribed, and will consider the person's attitude to telecare enabled support as a potential solution to help them remember to take the right medication at the appropriate time.

Referral for a medication review may be appropriate when considering requests for assistance with medication support, particularly if the person has multiple medications to take several times a day.

Telecare is not a suitable solution if the person:

- does not want to take their medication
- hoards medication
- is unable to take their medication
- has a moderate/severe Dementia diagnosis.

The table on the left may be helpful to identify possible technology enabled care solutions to support care planning