

# Operation Magnet Evaluation

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Produced by the Office of the Police and Crime Commissioner for Hampshire and the Isle of Wight



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## 1. Introduction

This report outlines details from the findings of a recent evaluation of Operation Magnet, a project which provides GPS<sup>1</sup> location devices to people with dementia in Southampton who regularly go missing. The purpose of this evaluation is to assess the success of Operation Magnet during its pilot phase and identify lessons learnt and areas for improvement to support any continuation or expansion of the project. It may also be used to support any future funding applications.

## 2. Background

Operation Magnet started in response to concerns about people with dementia going missing and the associated risk of severe harm and suffering to the individual, family and friends, and the cost to public services. This was accompanied by continually improving technology and continual advancement of technological solutions.

Hampshire Constabulary undertook a brief force wide review in October 2013 to review missing person occurrences during a 6 month period (April 2013 to October 2013) looking at frequency, length of episode and risk associated to the individual. During this review period a total of 63 cases were identified where an individual had gone missing and who had dementia. There were several repeat missing persons from this cohort and tragically one death as a result of missing with dementia. There were no incidents where an individual with dementia was missing for more than a day, and the average time missing was 1 hour and 30 minutes. The average age of persons missing with dementia was 76yrs, with 59% being male and 41% female.

The outcomes sought through Operation Magnet were:

- The quick location of missing people with dementia
- The prevention of harm
- Providing peace of mind for family, next of kin and carers

The project started in July 2014 and was designed to run as a 12 month pilot in the Southampton area. Southampton was selected as a pilot area due to the interest expressed by partners in working with Hampshire Constabulary to provide an innovative solution to this issue, and the fact that Southampton had been identified as having the highest volume of missing persons with dementia. The primary partners involved in the pilot phase have been:

- Hampshire Constabulary
- Southampton City Council
- Southern Health NHS Foundation Trust

These organisations have made up a small project team which has met regularly to develop and embed Operation Magnet.

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<sup>1</sup> Global Positioning System

### 3. Methodology

This evaluation is based on information from the following sources:

- 2 interviews with carers  
Practitioners were asked to select 1 client for whom the tracker has worked well, and 1 for whom it has not. 1 interview was conducted face to face and the other by telephone. Due to the nature of the clients' condition, the decision was taken to interview carers rather than interview the clients themselves.
- Discussions with practitioners  
This was generally carried out through attendance at Operation Magnet team meetings, supported by direct discussion outside of these meetings.
- Referral data  
The number of referrals to this project in its pilot phase has been limited, with only 20 clients being issued with a device and only 12 of these with information from the police available to inform the analysis.
- Existing questionnaire results  
Pre-issue questionnaires and post-issue feedback forms are in existence and were provided for this evaluation, but were only completed fully in 3 cases. In addition to this, some answers appear to be given by the client and some by a carer and it is not always clear who has given the response. Despite this, it was possible to draw some themes from the surveys which are discussed throughout the report.
- Data from Skyguard  
Data from the GPS tracker supplier Skyguard was used to identify clients currently using the devices. A demonstration was also provided by one of the interview participants.
- Web research  
Internet research was used to supplement and inform the findings of this evaluation and to undertake the options appraisal detailed in section 9.

Due to the limited nature of this pilot phase, it is too small a sample to draw any robust conclusions about the success of the project. As a result this report should be used to direct the development of the project in a way that will allow for comprehensive evaluation in the future.

## 4. How the project works

Operation Magnet has been aimed at service users who have varying levels of dementia but primarily at those who live independently in their own homes and who 'walk with purpose'. These individuals were deemed to be the most vulnerable to going missing.

The current provider of the GPS devices is Skyguard. The product offers the following functions which are used within the project's remit:

- GPS tracking
- Connect to Skyguard call centre at the touch of a button
- Pre-programme a phone number in to one of the other buttons to call, eg. a carer

The need for a GPS device could be identified by anyone, but a member of the project team carries out the assessment of suitability, ie. the designated Occupational Therapy Practitioner in Mental Health for Southern Health NHS Foundation Trust, the Social Worker from Southampton City Council, or the Detective Chief Inspector from Hampshire Constabulary. The devices are shared between Southern Health NHS Foundation Trust and Southampton City Council and allocated by them accordingly. The Skyguard website is used to maintain a central log of which services users currently have the devices. Once the device has been allocated, the designated DCI has responsibility for recording this on the person's record on the police system.

The suitability assessment is based on a number of factors, but ultimately determined by professional judgement. A copy can be found at Appendix 2.

## 5. Referrals

A total of 20 clients have received a GPS Tracker to date.<sup>2</sup> The average age of the clients at the point of issue was 77, but the range was 65 to 91 years (the age was unknown for 2 clients). At the time of this evaluation the average number of days a client had had a tracker was 61 days, ranging from 0 to 80 days, although this information was not available for 5 clients. Unfortunately 5 clients had not been logged on the police system as having a GPS device, and so this limited the information available about them.

No information was available about which organisations made each referral, but the consensus from the practitioners involved in the project was that suitable clients tended to be identified from their own caseloads or were referred by colleagues from within their own organisation.

The project team estimated that the time between receiving a referral and issuing a device was usually around 2 weeks, which was supported by the two interviews carried out.

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<sup>2</sup> As at 11 July 2015

Hampshire Constabulary has only turned down one referral in the duration of the pilot and this was only because the referral was outside of Southampton. In fact they did later decide that they would issue a device outside of Southampton, but by that time the person's health had deteriorated to the extent that a GPS device was no longer suitable. Southern Health NHS Foundation Trust had two failed referrals, one because the client refused to wear the device, and one because the carer found the light system on the device too confusing to use.

There was a differing response to obtaining consent between health and the local authority. If the service user was assessed as lacking capacity, Southern Health NHS Foundation Trust would not issue a device. However, Southampton City Council stated that they would issue a device if it was deemed appropriate following a 'best interests' discussion. To date the council has issued one device without consent, but report that this has not been very successful as the service user refuses to wear the device. It is recommended that the project team decide collectively whether or not to issue devices without consent. The view of the Alzheimer's Society is that there is a balance to be struck between a person's human rights and the benefits to them. Ultimately they state that the Mental Capacity Act 2005 should be used as a guide for assessment capacity and gaining consent. They pose the following questions when considering the issuing of GPS technology:<sup>3</sup>

- *Could technology replace more restrictive measures such as locking doors?*
- *When does technology stop being an aid to independence and become a restriction on autonomy?*
- *Would confidentiality and privacy be comprised? Who would have access to information if a person is tracked? Could a person with dementia be followed?*

Tracking clients with devices within the organisations was noted as a challenge to the project currently. Once the devices are issued their cases tend to move out of crisis management and into another service area, limiting the opportunities for the project team to review the success (or otherwise) of the devices. Whilst there is a process for recovering the device when it is no longer needed and updating the police system accordingly, during this small pilot this process was not always followed.

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<sup>3</sup> [http://www.alzheimers.org.uk/site/scripts/documents\\_info.php?documentID=579](http://www.alzheimers.org.uk/site/scripts/documents_info.php?documentID=579)

## 6. Using the tracker

The Skyguard device is worn on a lanyard around the neck. The interview participants had mixed experiences of clients remembering to put the device on. One had reacted very well and putting the lanyard on had become part of his routine, whilst the other had struggled to remember it. He would also take it off and put it in places where it could not receive a signal occasionally, such as under a pillow or in the wardrobe.

From the interviews, carer reaction to the devices has been incredibly positive and they have welcomed this technology. Both interview participants reported that their relatives were accepting of the technology, although there was some initial apprehension in one case.

The device takes around 3 hours to charge and the battery then lasts for approximately 2 days. This was not a problem for the clients that lived with someone that could remember to charge it for them, but did cause some problems for one carer that was interviewed who did not live with her relative - she then had to stay with him whilst the device was charging. For this reason she suggested that a spare device would be very valuable.

Both carers interviewed were using the website to 'check up' on their relatives' whereabouts. One reported that she checks the website every hour, but the other was far less frequent.

The practitioners had a good sense of the problems users and their carers have in using the device:

- The device could sometimes give false readings when it was searching for a signal, making it look like the user was somewhere they were not.
- Users sometimes assumed that the device was working because it was fully charged, when in fact it needs to be activated.
- Different combinations of flashing lights mean different things, which can be confusing.

Although only 3 feedback questionnaires were received from carers, they did report some problems with device reliability and tracking accuracy. The 2 interview participants were divided in their view of the technology; one praised its simplicity and ease of use, reporting that set up was simple and the website was easy to use. In contrast, the other carer felt that the set up was complicated, that her parents would not have been able to activate the device themselves, and that the website was needlessly protracted, although admitted it did become easier to use after a few times. Between them, the interview participants used computers, tablets and smartphones to access the Skyguard website and really valued these options, especially the ability to check on their relatives whilst out and about.

The practitioners felt that the Skyguard website was fairly easy to use, but that it was very difficult to get information out of the system to report on. This was particularly evident when trying to obtain data to use in this evaluation.

The interview participants were asked to suggest changes to improve the device and proposed the following:

- Less confusing light sequences
- Transmit a signal more frequently (currently the location is transmitted every 15 minutes, and one carer pointed out that someone can travel quite some distance in that time on a bus or train)
- Have just one on/off button
- Provide a spare device whilst the other is charging

## 7. Outcomes

### a) Quality of life?

Although only 3 feedback questionnaires were completed, all of them reported that the devices resulted in reduced worry and stress for carers and an increase in freedom for clients. This was tested in the interviews and strongly supported by the participants.

Neither carer spoken to felt that the device had impacted on their relative's quality of life, because it had resulted in them being able to carry on without modifying their behaviour – they did not know any different. However, this maintenance of their independence was recognised and valued by the carers, with one feeling strongly that the device had prevented her relative going in to residential care. It is of course impossible to measure the potential impact on the client's quality of life, but as a means of prevention of risk the device could have a very significant impact.

The impact on the quality of life for carers was immense. Both interview participants reported increased peace of mind and reduced stress for themselves and other family members. Although they had a responsibility to check the website for their relative's whereabouts on a frequent basis, the stress caused by this was significantly less than they had experienced prior to the device being issued. One interview participant had given up work

#### **John's Story** (name changed)

John is in his late 80's and has Alzheimer's disease. He lives at home with his wife. With his GPS device he frequently walks to the local shops and since receiving the device his wife has peace of mind that he will not go missing. John also uses the device when visiting his daughter in London, giving him much more freedom and a greater degree of independence.

The device gives John's wife freedom to do other things when he's out walking in the local area. She checks his location to anticipate his time of arrival home, reducing her stress as a carer and enabling her to use her time productively rather than spending it anxious and worried.

to care for her relative, and reported that she now felt able to return to work part time due to the reduction in time she now needs to devote to her caring role. She also spoke about the impact this has had on family relationships, with more time to spend with her children and an improved social life.

## **b) Successful location?**

Both carers reported successful use of the device to locate their relative when they have been concerned, without involving the police or other parties. One carer advised that their relative had been found by the police without her knowing he was missing, but that they were able to contact her using the Skyguard device for her to come and collect him.

### **Bill's Story** (name changed)

Bill lives in a residential home in Southampton. He has a moderate cognitive impairment and therefore suffers from short term memory loss. He has always been very active so it is important to him to keep busy during the day. He does not like sitting at home, preferring to walk around the local community. However, over the past 12 months he has been getting increasingly lost in the community and his residential home had to report him missing. The police would locate him and return him home frequently.

This led to tensions between the police and the residential home. The police felt that perhaps Bill needed to be cared for in a secure facility, whilst the home was concerned about their duty of care for Bill's well-being and safety.

Bill has now had a GPS device for the past 4 months and it has been really successful. He wears the device like a medal, proud this he has equipment that keeps him safe. Residential home staff are able to log on to the website and locate him when he is out walking and have learnt that he walks a familiar pattern around the local area.

This device has allowed Bill to keep his independence; to go to the shop alone and to spend his days as he wishes. It has also given the residential home peace of mind knowing where he is, and has freed up police time which was previously spent trying to find him.

Of the 12 clients for whom police data was available, 2 clients showed a reduction in police callouts for missing person reports after they were issued with a tracker. One client reduced from 2 missing person reports to no reports in the 79 days they had been using the device. The other client reduced from 12 reports prior to the device to 6 following its issue. 8 of the clients had no missing person reports logged by the police prior to the tracker device being issued, suggesting the trackers have been targeted at prevention rather than to clients with an existing high level of need.

## **c) Awareness?**

Different organisations had taken different approaches to publicising the project to their colleagues, with differing results.

Hampshire Constabulary had an internal launch programme which included an intranet page with details about the projects, publicity on screensavers and an article in the internal Frontline

magazine. However, because the project is limited to the Southampton area, it has been difficult to target the communications to relevant officers. This has especially been the case since the introduction of borderless policing.

Southampton City Council had carried out no publicity campaign but a social worker (and project team member) had spread the message to her colleagues. She did report that she had received referrals from each of the relevant teams, suggesting that there is awareness within Adult Social Services. Similarly Southern Health NHS Foundation Trust publicity had been small scale, with some presentations but most drip-feeding information about the project to raise awareness.

Collectively the project team did launch the scheme within the local media. This was well-received and resulted in some very positive press coverage, including this Daily Echo article:

[http://www.dailyecho.co.uk/news/11809750.GPS\\_system\\_is\\_being\\_piloted\\_in\\_Hampshire\\_which\\_helps\\_families\\_track\\_loved\\_ones\\_with\\_dementia/](http://www.dailyecho.co.uk/news/11809750.GPS_system_is_being_piloted_in_Hampshire_which_helps_families_track_loved_ones_with_dementia/).

#### **d) Earlier issue?**

Practitioners felt that a lot of users found it difficult to establish a routine of using their device, which is unsurprising given the nature of their illnesses. This was certainly supported by the interview data, with both participants feeling that their relatives would have benefitted more from earlier issuing of the device. One carer felt strongly that there should be greater awareness of the project amongst GPs because by the time a client is referred to a memory clinic their symptoms are quite advanced. She felt that earlier issue would help to embed the wearing of the device as routine, and that it would prevent much of the stress felt by the client's family as carers, giving them more capacity to support the client in adjusting to wearing the device.

This presents a dilemma as to the stage of progression of dementia that a GPS device should be issued at. Issuing earlier helps to establish a routine which appears more likely to continue when the dementia progresses, although people in the earlier stages are less likely to have a care package that allows for monitoring and support in using the device. Without a carer or relative on hand to provide support it is less likely that the GPS device will be used successfully. Earlier issuing could prevent or at least postpone a service user entering residential care, which would result in significant cost savings and also offer improved quality of life for the client and their family. Currently however, the teams involved in Operation Magnet work with clients in crisis. If there is a desire to use GPS devices as tools to prevent risk and harm, the service needs to be managed differently within the organisations.

#### **e) Cost savings?**

There has been insufficient data about the existing Operation Magnet cases to estimate any cost savings made. However the potential cost savings are listed below for information, which are useful to consider before reviewing the money spent on the project to date, as detailed in the next section.

Each time a person suffering from dementia goes missing it costs the police an average of £6,000<sup>4</sup>. Searches often involve a large number of officers, a specially trained search advisor, the dog unit and the helicopter. In addition to this, family members, friends and carers will also go in search of their missing person.

On average Hampshire Constabulary receive around 60 missing person reports in a 6 month period for people who have dementia. This is at an estimate cost of £360,000 to the force.

In addition, the average cost of residential care is £28,500 per year.<sup>5</sup>

## **8. Funding**

The project had funding of just over £5,000, provided in equal measure by Hampshire Constabulary (from the Public Protection budget) and Southern Health NHS Foundation Trust (from charitable funds). This money was used to purchase 25 devices. Each one has a £17.50 line rental for 12 months and there was no capital charge for the devices themselves. The line rental for the 25 devices runs out in August 2015 and to date no further funds have been identified to extend this.

## **9. Market Options**

As part of this evaluation a market options appraisal has been carried out to identify what new technology options are available to the project, as this is a rapidly growing industry.

With GPS devices costing up to several hundred pounds, they now come in a variety of styles and formats to suit the individual needs of each person requiring it. From pendants and fobs to more wearable devices such as watches and bracelets.

Other organisations that have also adopted the use of GPS devices for the same client group include Sussex Police using the Mindme GPS device since 2012, and Torbay and Southern Devon Health and Care NHS using Ostrich GPS since 2014.

Full details of the market options can be found at Appendix 1, but the table below summarises the features of these options.

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<sup>4</sup> Costs estimated by Hampshire Constabulary

<sup>5</sup> 'Paying for Care', Laing and Buisson, 2013/14

## Summary of Market Options

	Initial Cost	Monthly/Annual Fee	24/7 Call Response Support	Geo-Fencing	Two-Way Audio	Battery Life	Where it's Worn/placed	Weight	ACPO Approved Y/N
<b>Skyguard</b>	Free	£17.50	Yes	No	Yes	50hrs	Use with lanyard	43g	Yes
<b>Ostrich GPS</b>	Free- with a Dementia diagnosis or in the process of a diagnosis.	Annual Fee of £198- plus VAT 4 months up front then- 17.99 per month	Yes	Yes- only after expressed by family and agreed by the organisation	Yes	Up to 60hrs	Suited to the individual e.g. lanyard for around the neck, key ring style for keys.	60g	No- but nominated for good practice award.
<b>Personal GPS- Personal GPS Tracker</b>	£196.99	Cost of SIM usage*	No	Yes	Yes	3 days	Use with lanyard	40g	No
<b>Personal GPS- GPS Watch Tracker</b>	£169.99	Cost of SIM usage*	No	Yes	Yes	24hrs	Wrist	65g	No
<b>Personal GPS- Mini GPS Tracker</b>	£199.99	Cost of SIM usage*	No	Yes	No	3 days	Placed in bag/coat pocket	40g	No
<b>Mindme Locate</b>	£120 plus £10 delivery	£14.50 pcm	Yes	Yes	Yes	48hrs	Pocket/ belt	50g	No
<b>Mobility Smart</b>	£79.20	Cost of SIM usage	No	Unknown	Yes	Unknown	Wrist	56g	No
<b>Buddi- rental</b>	Free	£10pcm	Yes	Yes	Clip- Yes Band- No	Clip- 1-2 days Band- 6-7 days	Clip- clothing Band- Wrist	Clip-48g Band- 40g	No
<b>Buddi- purchase</b>	£249	£5pcm	Yes	Yes	Clip- Yes Band- No	Clip- 1 to 2 days Band- 6 to 7 days	Clip- clothing Band- Wrist	Clip-48g Band- 40g	No

\* texts (6p each) and/or data (20p per day, only if online tracking used)

None of the devices researched are ACPO or NPCC approved because there is currently no standard for vulnerable or dementia patients. Some devices which also act as a GPS for 'lone working' have been accredited by ACPO and other organisations, but there is no such standard for devices which solely act as a GPS for dementia patients.

In talking to different suppliers of GPS devices designed for dementia patients several issues were raised around the types of devices available, such as devices having an on/off button and the issues around this. It was also apparent that some devices can irritate the person wearing it, for example some patients were unable to take the watches off and unable to say that it was irritating them. This can lead to the individual as presenting as aggressive and frustrated; a particular risk to clients with thinning skin.

In contacting various providers regarding the GPS devices, Ostrich GPS stood out. Ostrich have developed their GPS device with the support of both the police and other health services. The device is already being used by NHS services across the country, and while there is no professional body of approval the Ostrich GPS is endorsed by a number of professional organisations.

The Ostrich GPS device is white because their market research determined this is the hardest colour for dementia patients to see, making it more subtle and less intrusive for the user to wear. The device is tailored to the individual (e.g. if they take their keys a key ring loop can be added), water resistant and there is no on/off switch. It works internationally at no extra cost and at the time of writing the device was being used by one client on a cruise and another travelling to India to visit family.

The device is taking part in the largest national trial for GPS trackers with dementia patients, the results of which will be released in Spring 2016.

## **10. Conclusion and recommendations**

Looking after someone with dementia can be a strain for a carer and can result in significant involvement with a number of different organisations. Those with dementia can be fully reliant upon their carer to provide physical and emotional support, be that a relative, friend, or professional. The relief of a GPS device for a carer can undoubtedly alleviate part of this strain and promote independence for both the carer and client. This has been well evidenced in the Operation Magnet pilot.

The pilot has been small and as a result it is not possible to draw firm conclusions about the impact of the project on preventing missing persons or postponing residential care. However the data that is available shows that where they are available, GPS devices can have significant benefits for all parties.

Southampton University will shortly commence a research project to understand how effective and acceptable GPS devices are and what other measures people use to promote safer walking. It will ultimately produce guidance for people to use when issuing and using GPS for safer walking. This project will significantly inform the future development of GPS tracker use with dementia patients nationally, and will be incredibly valuable to Operation Magnet's progression.

In the mean time, the following recommendations for future development of Operation Magnet are drawn from the findings of this evaluation and the views of practitioners and service users (where available).

- Increase the coverage of the scheme by widening the pilot area to a larger proportion of Hampshire and by increasing the number and possibly range of devices available.
- Dramatically improve the awareness of Operation Magnet and its progress to date amongst partner organisations, and in particular within the Adult Safeguarding Boards, to increase the volume of referrals and improve the targeting of the scheme to the most suitable service users.
- Develop and refine processes for referrals and outcome tracking, including tracking finances and collecting information to better inform future evaluation of the project.

Ultimately the aspiration of the project team is to make the provision of GPS devices to dementia patients as standard as offering a telecare system to older people. This is ambitious and despite their passion and commitment, it is clearly not something that can be achieved by the current project team alone. If this scheme is to spread it will require support and governance from Adult Safeguarding Boards and most likely a dedicated coordinator.

A dedicated coordinator would provide the much-needed capacity to administer the programme – managing referrals and tracking outcomes, promoting the scheme and supporting its expansion. Current issues such as clients not being logged swiftly on the police system as having a device appear to be ones of capacity alone, but jeopardise the success of the programme.

Arguably the most powerful success of this project has been its impact on quality of life. Both interview participants did not hesitate to state that they would recommend the device to others, and indeed one already had. The powerful message from one was:

*“Without this, we’d be lost.”*

## Appendix 1: Market Options

Description	Image
<p><b>Ostrich GPS:</b>            Cost: No cost for the device for anyone with a form of dementia or in the process of a diagnosis - annual monitoring fee. Annual subscription of £198 +VAT.</p> <p>Supported by 24/7 365 geo tracking and contact to a live emergency call response centre managed by Torbay and Southern Devon Health and Care NHS Trust. Should a user go missing, the recovery process has been created in conjunction with the police and emergency responders.</p> <p>Weighs little more than a 2p, similar in size to a match box, 3-pin plug charger.  <a href="http://www.ostrichcare.co.uk/care/gps-trackers.aspx">http://www.ostrichcare.co.uk/care/gps-trackers.aspx</a></p>	
<p><b>Personal GPS:</b>            All trackers use a Sim Card and rely on the carer to fully use the location features.</p> <p><b><u>£196.99- GPS Personal Tracker.</u></b></p> <p>7 Day standby battery, Size of a matchbox, Instant map links via SMS, Two way calls, SOS button, Live online tracking, Geo-fencing.</p> <p>Easily worn with a lanyard strap like a necklace, or carried in a pocket by itself or with a bunch of keys.</p> <p><b><u>£169.99- GPC Watch Tracker</u></b></p> <p>Instant map links via SMS, Two way calls, SOS button, Live online tracking, Geo-fencing.</p> <p>Because it is also a watch, it can be worn as part of a normal routine. Please note that the tracking functionality is totally discreet on all our GPS Trackers</p>	 

**£199.99- Mini GPS Tracker**

Very small, size of flash drive, instant map links via SMS, Live online tracking , SOS Button, Geo-fencing.

**Mini GPS Tracker is small enough to hide** in a bag or clothing, so is perfect if total discretion is important.

<http://www.personalgpstrackers.co.uk/>



**Mindme Locate:**

Cost- £120

Monthly subscription- £14.50

Delivery Charge- £10

Measures 65mm x 39mm x 17mm and it weighs 50 grams , Uses GPS to work out its location - accurate to around 10 metres , Locations are updated around every 4 minutes on Mindme's website and Carers can see the last known location online whenever and as often as they wish. Mindme's 24/7 Response Centre is available to assist Carers in an emergency

Battery lasts up to 48 hours

Mindme Locate has a 'drop in' charging unit which makes charging easy

A warning email can be sent when the battery is down to 10% capacity

Ring fence option available – the alarm will be tripped if the user moves outside pre-set locations

It can be used throughout the EU without additional Subscription cost

<http://www.mindme.care/payments/default.html>



**Mobility Smart:**

Cost- £79.20, connects via pay and go SIM.

Weight 56g

Length: 6cm

Width: 4.5cm

Deep: 2cm

Voice monitor, two way audio speak, route logging and repeat, built in memory for 16,000 positions, SOS button. Exact street address by SMS, free PC tacking software, web online tracking and mobile app.

<http://www.mobilitysmart.cc/gps-watch-tracker-for-the-elderly-with-alzheimers-or-dementia.html>



Buddi:

**Cost Plan:**

Rent a Buddi- £10 per week, 24/7 alert support

Buy- £249, plus £5 per week for 24/7 alert support.

Wristband is waterproof and designed to be worn at all times. It senses motion, detects falls and communicates wirelessly with the buddi. By pressing the buttons you can ask for help or cancel an alert. Dock charges the device.

- Colour- Lilac or grey.
- Automatic fall alert
- Location finder
- 24/7 Emergency Monitoring Centre
- Activity Log

<https://www.buddi.co.uk/index.php?action=shop>



## Appendix 2: Pre and Post Questionnaire

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Locating Technology for People with dementia who are at Risk of Wandering:

### Summary

GPS locating technology has developed over recent years into person centred devices that can be used for people with dementia. This project is designed to evaluate the use of locating technology with a small number of people with dementia who still walk out independently but who may be at risk of becoming disorientated or lost to see if it can have a positive effect on their quality of life and reduce carer burden in relation to this aspect of their independence.

Locating technology seems to fulfil two needs:

1. To locate a vulnerable person who is lost safely and quickly and in doing so reducing the risk of severe harm and suffering.
2. To provide increased independence to a person who wishes to go out alone but may become lost

### Ethical Considerations

- Informed consent gained from patient and carer for use of device and evaluation
- If a client does not have consent a Best interest meeting will be held.
- All access to data is logged to allow auditing.

### Method

- Criteria for admission to the project – A client living in the community who goes out independently but is at risk of becoming disorientated or lost and has a concerned carer or professional.

### Pre Assessment Baseline Criterion

- MMSE
- Risk Assessment
- Care plan
- Assessment including frequency of when the client likes to walk, locations, history of getting back.

### Pre Interview Questions

1. Please tell us about the frequency of how often the person likes to go out walking, the time during the day, the location and frequency. Has the client ever got lost or “wandered off”. Can you tell us about the client’s daily routine?

1. What bothers you most about the clients wandering behaviour?

- Lack of communication skills
- ✓ Lack of general understanding of wandering behaviour
- ✓ Safety and security
- ✓ Memory loss and disorientation
- ✓ Seizure/medical problems

Other \_\_\_\_\_

2. What strategies do you presently have in place to deal with the client going out walking/potentially wandering?

- Extra security locks \_\_\_ Physical barriers
- ✓ Constant supervision \_\_\_ Distraction and diversion
- Increased support personnel \_\_\_ Alarm system

3. Do you worry about the person getting lost and are you concerned about the person going missing or not being where they should be? If yes, on a scale of 1-10 what would you rate this concern.

1 not being very concerned, no worries, 10 being extremely worried and concerned.

1    2    3    4    5    6    7    8    9    10  
.....

4. Why would you use an Electronic Locating System what benefits would you like to see?

5. Has the client ever being lost and have you contacted the police as a result of the client going missing? If yes how many times during the year?

6. Do you feel stressed and strained due to the worry about your concern the person you care for is at risk of wandering off and getting lost? If yes, on a scale of 1-10 what would you rate this concern.

Never, Rarely, Sometimes, Quite Frequently, ( Nearly Always )  
.....

Is there any additional information you would like to share with us?

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Second Interview Questions

1. Please tell us about your experience of using the electronic locating system?
2. Did the technology have any effects on the client's life and yours? In what way? (Example did it reduce concern, worrying).
3. Since having the device and now being able to access the website portal, do you still get concerned about the person you care for going missing or not being where they should be?

1 not being very concerned, no worries, 10 being extremely worried and concerned.

1      2      3      4      5      6      7      8      9      10

.....

4. Do you feel stressed and strained due to the worry about your concern the person you care for is at risk of wandering off and getting lost? If yes, on a scale of 1-10 what would you rate this concern.

Never, Rarely, Sometimes, Quite Frequently, Nearly Always

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5. Have you used the electronic locating system in any search where you believed the client had gone missing and you were worried about them? Since having the device, how many times has the client gone missing and how often have you used the device?
6. Please tell us about your experience of the service provider and the use of the GPS?
7. What are the limitations and strengths of the electronic locating system? Consider ease of use and benefit, understanding of the device, frequency of use.
8. What are your recommendations to improve the electronic locating system?
9. How has this device helped you and the person you care for?
10. Is there anything else that you would like to add?

Comments