# Diabetes management within the prison setting

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**Citation:** Mills L (2014) Diabetes management within the prison setting. *Journal of Diabetes Nursing* **18**: 408–13

### Article points

1. Prison inmates present unique challenges for diabetes care, and recent reports show that standards of care are suboptimal.
2. Challenges include restricted access to medications, physical exercise and information; limited control over meal times and diet; and irregular access to and communication between healthcare providers.
3. A standardised approach to diabetes care in this setting, including training for both healthcare providers and prison staff, should be adopted and could improve standards of care.

### Key words

- Diabetes
- Prison

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**Diabetes is a lifelong condition that requires management from the day of diagnosis. As healthcare professionals, it is important to ensure that we understand each person with diabetes and have the knowledge, skills and treatment to assist them in having a good quality of life as well as reducing the risk of both acute and chronic complications. With those people who are vulnerable or hard to reach, this can be even more challenging. This article describes the challenges of treating diabetes in prison inmates, a particularly vulnerable and hard-to-reach group. We need to ensure that these people have access to the same standard of care and treatment that they would if they were in the community. This is not something that can be done easily, and it is as challenging for the healthcare professional as it is for the individual with diabetes.**

Diabetes is one of the greatest health challenges within the global community. There are additional difficulties associated with treating vulnerable and hard-to-reach people. Engelund (2013) suggests that such people have worse morbidity and mortality rates, in line with increasing deprivation. The situation is arguably even more difficult for those people with diabetes who find themselves detained within the prison setting, who can be even more vulnerable.

## The prevalence of diabetes in prisons

There are 138 prisons in England and Wales, and another 20 within Northern Ireland and Scotland. In total, there is currently a male population of nearly 81 000 and a female population of approximately 4000 in prison (Ministry of Justice, 2014). More than 140 000 people move through the English prison system each year. Around 5% of these prisoners have diabetes. The UK prison population is increasing each year (Berman and Dar, 2013), and within the prison system there are issues and healthcare needs that must be addressed. The number of prisoners in most age groups has fallen in the past year, with the exception of prisoners aged over 50 years, who increased in number by 5.2%. The increasing number of over-50s means that there are growing healthcare needs for these offenders, particularly when considering diabetes care.

More than a decade ago, the Secretary of State for Health assumed responsibility for medical care and services for prisoners' health in England and Wales; this in turn was transferred from the Home Office to the Department of Health and down to the local primary care trusts. In March 2012, the Health and Social Care Act received royal assent. The Act introduced significant restructuring of healthcare services in England from April 2013, including the abolition of strategic health authorities and primary care trusts. It created an

independent NHS commissioning board, NHS England, with responsibility for commissioning "services and facilities for people in prison and other places of detention," and also resulted in the formation of Public Health England. The responsibilities of NHS England cover both public and contracted prisons and, therefore, effectively complete the transfer of responsibility for prison healthcare to the NHS.

From April 2013, NHS England became responsible for commissioning all health services (with the exception of some emergency-care, ambulance, out-of-hours and 111 services) for people in prisons in England, by means of Health and Justice commissioning teams in 10 of NHS England's 27 area teams, supported by a small national Health and Justice team (NHS England, 2013). This expands the range of healthcare services that are directly commissioned for prisons, in particular with new responsibility for commissioning secondary care, community services and public health services.

A number of these services have been contracted out to independent healthcare providers, such as Virgin Health in the south of England and Care UK in the north-east (O'Dowd, 2012). Others have remained within the general services of the local NHS providers.

## Diabetes services for detained individuals

The care that is provided for imprisoned people with diabetes varies across the UK, and there have been several studies into this subject. Booles (2011) and Nagi et al (2012) have reviewed the standard of care provided for offenders within the prison setting, documenting that this healthcare is still not reaching the required standard. Some prisons offer "in-house" diabetes clinics supported by the local secondary care team, whereas others have no support for long-term conditions or diabetes management and need to refer all offenders to external services. However, Mills (2014) has clearly documented how diabetes care that does meet the required standards can be provided and can improve both health and wellbeing outcomes, in turn having a positive effect on diabetes care and management.

Healthcare clinics within the prison setting tend to spend the majority of the time dealing with minor ailments that, in the community, would be managed with self-care. This is to the detriment of care for those with chronic diseases (Marshall et al, 2000). In 2009, the Department of Health (DH) published an article jointly with the National Offender Management Service outlining the need for all offenders to have access to knowledge and be empowered to manage their own diabetes in order to try and achieve a good quality of life (DH, 2009). However, for some inmates, prison provides an opportunity to access healthcare that, for a variety of reasons, they have not been able to access previously. Marshall et al (2000) demonstrated that male

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1. Prisoners' access to food and medication can be limited owing to safety concerns and strict routines.
2. Exacerbating this problem is the fact that prison staff are not always trained in diabetes care and spotting complications.
3. Access to education, physical exercise and specialist diabetes care is often limited for prison inmates.

prisoners consulted prison healthcare workers approximately 23 times per year. This rate was 77-times higher than the rate at which men consult nurses in a community setting. Many of these consultations were for minor ailments that would be dealt with by self-care or over-the-counter medications in the community. There can be a lack of consistency in the trained prison staff supporting this group of people (Booles, 2011). Lack of understanding and training for both healthcare professionals and prison officers can obstruct good management and care of the offenders.

## Challenges faced by detained individuals and their healthcare workers

Within the prison setting, there has to be a system and routine for both staff and offenders. From diagnosis of diabetes, regimens will be enforced on a detained individual, and it must be remembered that anything that is said in a patient consultation needs to be reviewed and re-accessed, as no prisoner will have access to the internet to seek out further information or advice once they leave the healthcare unit or clinic.

Many prisons have set times for medication administration and, for those offenders who are not in possession of their own treatment, such as insulin or injectable medications, this means that treatment regimens are controlled by these timings rather than when or what they wish to eat (Booles, 2011). Some prisons offer structured education for diabetes and some do not. Self-management of insulin doses can be problematic in some prisons where the staff have not had the level of diabetes education to understand how this can empower prisoners to self-manage. However, there are some prisons where offenders can have control of their medication and blood glucose-monitoring equipment, and this can empower them to manage their diabetes within their own cells.

Food choices are, on the whole, well balanced but portion size and access to foods may not be as flexible as people are used to in the community (Booles, 2011). Access to a balanced diet may not be something that an offender had access to before entering prison. Certainly, within the prison setting, offenders with diabetes can have specific problems managing the condition, such as strict meal times and long gaps between the evening meal and breakfast. Adapting eating habits can help prisoners manage their diabetes, and there should be access to a wide variety of food, albeit possibly at different times than the prisoners have been accustomed to prior to arriving in prison. There is also a prison canteen where they can purchase many other items that may not be offered at meal times, such as drinks, snacks and groceries including noodles, tins of fish and peanut butter. Many treats are also available that can be a comfort for anyone who has to remain in a cell for up to 23 hours a day. This can be something that a healthcare professional needs to work with, rather than against, in order to keep the prisoners safe and engaged in planning care to meet their needs. Guidelines on diabetes care in prisons by the American Diabetes Association (2008) suggest that meal times should be coordinated with drug regimens to reduce the risk of hypoglycaemia. However, as previously mentioned, this can be difficult to achieve.

Blood glucose monitoring should be offered to all prisoners who are required to do so. In most cases, they will be allowed to keep their meter and finger-stick (single-use devices) with them in their cells, unless they are deemed too dangerous. The prisoners should be encouraged to maintain a monitoring diary and bring this with them to their clinic appointment each time. This should be reviewed, and a discussion of their diet, medication and monitoring should take place at each review.

The difficulty can arise in accessing blood glucose monitors and in managing hypoglycaemic episodes, given potential unavailability of snacks or dextrose tablets. With the exception of the healthcare staff, prison officers are unlikely to be versed in using glucose meters and may not be aware of the signs and symptoms of a hypoglycaemic attack. This should be addressed where possible, and in some prisons annual staff training is provided for both healthcare and prison officers on blood glucose monitoring (Leiversley and Booth, 2009).

Sickness management, and prevention of diabetic ketoacidosis (DKA) in particular, are

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1. Misuse of medications and substance abuse are common in prisons; however, where possible, inmates should be allowed control of their own diabetes medication.
2. The prison environment is one where chronic conditions can be poorly understood and stigmatised; therefore, there are often issues with sharing information on good practice in diabetes care.
3. There is also poor continuity of care between prisons and local diabetes services, and between healthcare providers and prison staff.

important. DKA is an acute complication that will warrant a trip to the local hospital, and some offenders have been known to use their diabetes to manipulate a hospital visit for a day or two (Gill et al, 1992).

Exercise usually consists of only 30–60 minutes per day out of a cell, unless offenders are in an open or Category D prison, where they are allowed more time out of their cells and often seek employment outside of the prison whilst completing their sentence. In one study, Herbert et al (2012) looked at exercise data from prisons in two countries (the UK and Australia) and found that, in the UK, prisoners were less likely to achieve adequate exercise (more than 150 minutes per week). Some prisoners have access to a gym, but there is often a long waiting list to be allowed access to it more than once per week. This information is provided to the prisoner in the form of a booklet written by the Prison Reform Trust on their admission to prison.

Offenders may not have regular access to specialist care, eye screening or podiatry care (Booles, 2011). There can be long waiting lists for general podiatry; however, the upskilling of healthcare staff can assist in reducing the number of foot problems that develop (Nagi et al, 2012).

Alcohol and substance abuse can be an issue for people who are detained in prison, and this needs to be addressed on an individual basis, as it can make good control of diabetes difficult to achieve. Regarding medication administration, where possible, all prisoners will be in possession of their medication, unless they cannot be trusted owing to either compliance or self-harming issues. Unfortunately, medications are misused in prisons, as there is a significant proportion of prisoners who will seek prescribed medications for their psychotropic effects rather than their therapeutic or licensed use (Levy, 2012). The ability to titrate insulin or adjust doses to account for meals will obviously be of great benefit in improving glycaemic control in any person (Mills, 2014). If this is not possible, frequent visits to the prison healthcare clinic will be required.

Finally, the fastest-growing age group in the prison system at present is the over-50s (Berman and Dar, 2013); however, there is no national strategy for older people who are sent to prison, and the service needs to develop a strategy to cope with this fast-growing group. Such people will have their own set of needs and may often be on a number of medications that will need adequate support and monitoring; in these situations, the prison pharmacist can be a great support for the clinic.

## Working with a detained individual or offender

One of the clearly identified weaknesses of clinical management of prisoners with diabetes was demonstrated in an audit by the Royal College of Nursing (RCN) in 2009. It was found that there was a reluctance among healthcare professionals to share good practice among prisoners; it has been suggested that this may be due to fear or the lack of understanding or acceptance (Booles, 2011). In the prison environment, there is an ethos of "looking out for oneself" and self preservation, and diabetes is often seen as a weakness and can be hidden during a prison sentence.

Continuous care and the build-up of relationships within the clinic setting can help to support positive care activities, and these, in turn, can demonstrate to the offender that good diabetes management and care can be achieved and long-term outcomes improved (Mills, 2014).

Following the RCN audit, Booles (2011) highlighted a number of challenges within the prison environment, such as the following:

- Lack of care continuity and variation of healthcare provision between prisons, resulting in care failures in diabetes management.
- Poor relationships and communication between local diabetes services and GPs around prisons.
- Poor communication within the prison setting itself between healthcare staff and prison officers, resulting in poor knowledge sharing and staff training on acute complications, treatment strategies and dietary management.

Diabetes is a chronic, long-term condition, and it is essential that support and care is offered throughout the whole of life to all individuals with the condition. Whether it be in the community or in a prison, the care offered should remain the same, admittedly with some limitations to ensure the safety of all those concerned. This may mean not allowing a prisoner to have full possession

of his or her medication, but a careful needs and risk assessment should be carried out for each individual.

Each prison needs to ensure that it reviews its diabetes service and, if needed, redesign the service in order to achieve the greatest outcomes for those who are detained. Nagi et al (2012) looked at the benefits of redesigning the service within HMP Wakefield, highlighting increased access to appropriate healthcare and up-skilling the prison workforce, enabling providers to deliver diabetes care within their core role, and reducing emergency diabetes admissions and healthcare inequalities. Mills (2014) also demonstrated how a service redesign could reduce these inequalities, to the benefit of both offenders and healthcare professionals.

## Recommendations

Prison inmates are some of the most vulnerable patients and, therefore, they are most likely to benefit from timely intervention. This can be difficult and is a unique challenge in this group of individuals. A standardised approach to diabetes management within the prison setting should and would improve patient care and long-term conditions. A good diabetes clinic would ensure that all healthcare professionals have an adequate standard of training and knowledge, and can be supported by a specialist team where required. This knowledge and training should be shared throughout the prison staff system as needed. Access to dietary advice and foot care is another must, as is annual eye screening.

Where possible, the staff involved in the management of this group of people with diabetes should ensure that they undertake a good standard of training, such as completing one of the NHS IQ e-learning modules (Safe Use of Insulin; available at: www.nhsiq.nhs.uk), and understand the importance of the prevention of insulin overdoses.

The type of prison (a highly secure institute or a low-category, open prison) and the types of inmates (a highly populated, mixed-ethnicity group of adults or small numbers of purely young offenders) will influence the individual needs for each prisoner, from treatment choice to dietary needs. Each prison should have access to guidance and written information to deal with both acute and chronic complications, which can be sourced from their local secondary care or community diabetes team.

## Conclusion

The NHS is constantly changing and facing new challenges, but always with an agenda to provide high-quality care. All people with diabetes should be treated with respect and dignity wherever this care is provided, and the prison setting is no different, although it continues to be a challenge. Although working with this group can be extremely challenging, it can also be incredibly rewarding. As healthcare professionals, we are in a position where small changes can have a massive impact on the outcome for the offender. It is important to remember that building on the knowledge and skills of the team can be the key to success, and working with the multidisciplinary team can assist in that success. ■


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***"A standardised approach to diabetes management within the prison setting should and would improve patient care and long-term conditions."***