

INCREASING THE UPTAKE OF NEW TECHNOLOGIES IN DIABETES: RECOMMENDED ACTIONS



***“It’s possible to think about
new technology as being
money saving”***

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1. INTRODUCTION

Technology has the potential to transform care for people with diabetes and enable many to self-manage their condition better.

But take up of innovations in diabetes care has historically been slow for a number of reasons including perceived additional cost to the system. This has come to a head with *'flash glucose monitoring'* with NHS England recently intervening to make FreeStyle Libre™ available to all people with type 1 diabetes who meet specified criteria.

An ABCD workshop looked at what are the barriers to wider adoption of technology in diabetes and how these could be overcome, with a focus on actions that could be taken forward by stakeholders.

2. RECOMMENDED ACTIONS FOR STAKEHOLDERS

THE NHS CENTRALLY/THE GOVERNMENT

- Adopt a national approach to new technologies to ensure they are rapidly available across the country without unwarranted variation (*a 'post code lottery'*), using criteria developed with clinical professionals.

This could be supplemented by developing a methodology for local health economies to make a reasoned decision on objectives of using new technology (*the 'What'*) and make the appropriate investment decisions (*the 'How'*) with template tools e.g. a Business Case.

- Look again at NHS funding systems and their ability to cope with new technologies. GP at Hand has shown how existing systems can't easily cope with a disruptive innovation or new models of care delivery.
- When introducing new technology, assess its potential impact on health inequalities and how it can reach those who are deprived or face other challenges. Uptake of and access to some diabetes technology has been strongest among the most affluent sectors of society.

FOR CLINICAL DIABETES NETWORKS

- Look out for and support clinical champions who will drive forward change in their own organisation but may benefit from contact with others in a similar position. For example, develop a cadre of *'Technology Champions'* in diabetes.
- Adoption of new technologies often requires additional training for clinicians; for some groups of healthcare professionals, this may be best delivered on a regional basis.
- Consider developing or adopting business cases to support the adoption of new technologies where there are benefits to people with diabetes. Adopting new technologies over a wider area than a single trust can mean a reduction in unwarranted variation and postcode lotteries.
- Argue for network wide resources to support clinicians such as a lead clinician supported by a specialist nurse.

FOR INDIVIDUAL NHS ORGANISATIONS

E.G. ICSSs/STPs/HEALTH BOARDS/HOSPITALS

- Identify clinical leaders who are either *'Technology Champions'* in diabetes regionally and/or diabetes clinicians with an interest in new diabetes technologies.
- Ensure that adoption is backed with training for relevant healthcare professionals and also for people with diabetes when appropriate.
- Look at how data generated by people with diabetes can be linked into the electronic patient record and made available to all clinicians dealing with them.
- Invest in IT systems which minimise the amount of time clinicians spend re-entering data and details: this will allow them to spend more time treating people with diabetes.
- Consider providing training to people around self-management and also psychological support. Supporting people in self-management improves the use of resources and reduces waste.

FOR INDIVIDUAL CLINICIANS

- Identify the training needs of yourself and your team, ideally in advance of new technologies being introduced.
- Be prepared to argue for disinvestment of parts of services which are not meeting the needs of people with diabetes or where resources (*both money and staff*) would generate more value if used elsewhere.
- Consider how your time and that of those around you is best spent; elements of the care of some groups of people with diabetes could be devolved to other healthcare professionals allowing you more time with people with diabetes who are complex or experiencing difficulties with diabetes management. This may involve up-skilling some staff.
- Be prepared to change practice around the number of out patient appointments and using virtual clinics utilising video or telephone consultations. Both can save time but may also suit peoples' lives better. For example, reduce time off work, travel, parking charges etc.
- Make use of the powers and freedoms that you have to effect change. Don't wait for permission; many changes are not costly and can be initiated by clinicians.

3. WHERE ARE WE NOW?

"In terms of access to Libre, my local area is just kicking the can down the road."

"A lot of my patients don't have the head space to get to grips with a pump which some people describe as like having a second job."

Technology in diabetes care has advanced rapidly in recent years. Insulin pumps, continuous glucose monitoring and flash glucose monitoring offer the opportunity for people with diabetes to monitor and manage their conditions with more information and greater confidence than ever

before. Apps and online advisors have also helped many people understand more about their condition with a view to improving their management and ultimately their quality of life.



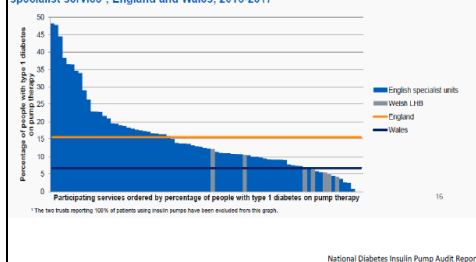
But uptake of these devices has been slow and patchy across the country – even when they have been backed by National Institute for Health and Care Excellence guidance and NHS England support. This has meant access to technology has been difficult for many people with diabetes

Where people with diabetes are getting access on the NHS this can often be restricted to those with type 1 diabetes, who face significantly greater risks of complications and premature death. With onset at an earlier age on average than with type 2 diabetes, they also face a lifetime of living with their condition, which is likely to require intensive self-management.

The evidence is that they are faced with enormous variation in care, according to where they are treated. Some of this will be about access to new technology but not all. There is almost 100% variation in the percentage of people with diabetes achieving HbA1C of 55 mmol/mol or less between specialist units. Having an insulin pump increases the chances a person will achieve this, according to the National Diabetes Insulin Pump Audit report for 2016-17. Yet 15 years after they were introduced, only 12.2 per cent of those with type 1 use one, considerably lower than in other European countries and less than a third of the level in the United States.

Variation in uptake in CSII

Figure 6: Percentage of people with Type 1 diabetes on pump therapy by participating specialist services¹, England and Wales, 2016-2017



And with pumps there is also enormous variation between specialist services with some having nearly 50 per cent of their type 1 people on one and others with below five per cent. The number of people using pumps decreases as deprivation increases. Part of this may lie with people selection: people who face battles in their everyday life may not be seen as having the motivation, commitment and competence to use a pump, and may not engage with services.

Nationally, only just over a fifth of CCGs commission continuous glucose monitoring devices in line with NICE guidance with 60 per cent of them requiring individual funding requests to obtain one. Despite a push to make FreeStyle Libre™ available over the last year, it has taken NHS England intervention to make it available across all CCGs from next April. Until this intervention, some CCGs had still been saying they require more information to come to a decision and others had tried to restrict availability by proposing eligibility criteria that were even more demanding than those recommended by the Regional Medicines Optimisation Committee.

4. EXPERIENCES OF SCOTLAND, WALES, NORTHERN IRELAND

Scotland, Wales and Northern Ireland have different approaches to England when it comes to assessing new technology and making it available to NHS people with diabetes.

Scotland has low access to insulin pumps and continuous glucose monitors and enormous variation in access to flash monitors. Even when FreeStyle Libre™ is freely available, the least affluent people are much less likely to be using it.

Decisions on access have been devolved to local health boards which have led to variation across the country even though the Scottish Diabetes Group has developed criteria for access to FreeStyle Libre™.

National criteria

Role of the SDG – a national approach



Scottish Diabetes Group criteria for NHS-funded Freestyle Libre sensors

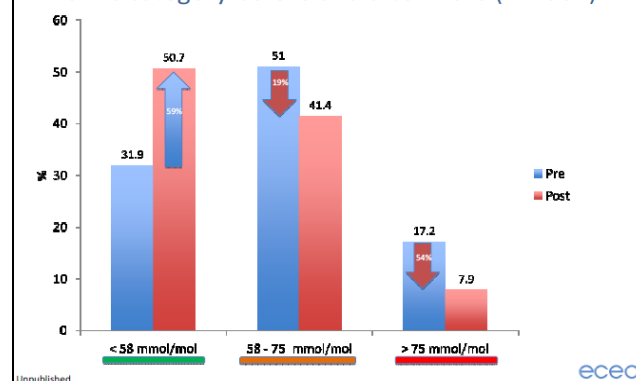
1. Use intensive insulin therapy (multiple daily injections [typically 4 or more] or insulin pump); and
2. Agree to attend a locally provided Freestyle Libre education session; and
3. Agree to scan glucose levels no less than six times per day; and
4. Agree to share glucose data with their diabetes clinic;
5. Have attended a recognised diabetes structured education programme. And/or clinical team are satisfied that the person has required knowledge/skills to self-manage diabetes.

There are pockets of high uptake, however. In Edinburgh, all people with known type 1 diabetes were contacted about FreeStyle Libre™ and offered more information, including a group education session. If they attended this, wanted to try the technology and met eligibility criteria, their GP was contacted and prescribing commenced. Over ten months, this has led to 50 per cent of the T1 population starting on FreeStyle Libre™.

Among people with diabetes using it in Edinburgh, those with previously high HbA1c have seen the biggest improvement and there is strong data showing an improvement in quality of life.

HbA1c outcomes

HbA1c category before and after Libre (n = 367)



Diabetes distress scale outcomes

Positive changes following Libre

	Much more of a problem	More of a problem	No change	Less of a problem	Much less of a problem
Emotional component					
Diabetes taking up too much mental and physical energy	0.6%	5.8%	21.8%	47.6%	24.2%
Feeling angry, scared, depressed about living with diabetes	0.3%	3.9%	50.0%	35.5%	10.3%
Diabetes controls your life	0.3%	6.1%	36.7%	43.0%	13.9%
Think you'll end up with serious complications	0.3%	3.7%	38.0%	41.0%	17.0%
Overwhelmed with demands of living with diabetes	1.2%	7.9%	41.5%	37.0%	12.4%

Unpublished

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The small size of Wales means only a single national decision is needed on the adoption of new technology. When flash glucose monitors became available on prescription the national statutory advisory group developed a set of access criteria which was then accepted by Health Technology Wales. The HTW decision predated much of the variation which developed in England and ensured a consistent approach.

FreeStyle Libre™ was approved by the Diabetes Network in Northern Ireland soon after it appeared on the NHS Drugs Tariff. A 3-6 month trial is recommended for people who meet the eligibility criteria. Assessments look at use of the sensor, effect on blood glucose variability and time spent in range, and improvement in the initial problem triggering the trial. If these results are satisfactory then the people with diabetes remain on FreeStyle Libre™ with an annual review.

FreeStyle Libre™ is the diabetes technology which has attracted the most attention over the last two years. It was available privately to people who were able to pay the upfront cost of £150 and monthly costs of £120 for sensors (*including the Prime Minister*).

However, in the absence of a NICE Health Technology Assessment it was not accessible to NHS people with diabetes. This changed in November 2017 when it was **'fast tracked'** onto the NHS drugs tariff.

The possibility of a **'post code lottery'** was obvious at this point and there were attempts to prevent it through an ABCD Type 1 Diabetes Clinical Collaborative UK recommendation and Regional Medicines Optimisation Committee statement. The ABCD recommendation defines the groups in whom FreeStyle Libre™ should be trialled – with the possibility of withdrawing it after six months in some cases. It also sets out the economic case for the technology.

However, some CCGs have refused to commission it, often citing the need for additional information or for the evidence to be reviewed by them as a reason for delay. In some cases, they have tried to impose further restrictions on use by tightening criteria laid down nationally.

In November 2018, NHS England announced it would ensure it would be available to all people with diabetes who met the NHS clinical guidelines from April 2019. It said this would increase access to cover around 20%-25% of people with diabetes with type 1 diabetes – around 3%-5% are thought to have access at the moment. Access would be based on the existing national guidance but this would be updated as further evidence became available.

5. THE CONCEPT OF TRIPLE VALUE

Value is a key concept in the provision of health care – especially when resources are limited and demand for healthcare are increasing:

- **Personal Value** – how well does the outcome from health spend or input relate to the values of each individual. Does an Intervention result in outcomes which the patient values?
- **Allocated Value** – how well are resources distributed to different sub groups in the population?
- **Technical Value** – how well are resources used for all the people in need in the population?

Allied to this is the idea that **‘waste’** in the NHS is something which does not add value. Over use of some high value interventions may result in waste and may ultimately cause harm.

In terms of increasing value for populations, the triple value approach suggests:

- Ensuring that every person is provided with full information about the risks and benefits of intervention on offer to ensure they get the maximum personal value out of it.
- Where there is evidence that overuse of interventions or low value from those interventions, resources should be shifted to areas where there is evidence of under use and inequity.
- Develop population based systems and networks.
- Create a culture of stewardship of resources.

6. BARRIERS TO GREATER USE OF TECHNOLOGY

Cost

“It’s all about the money. The reality of annualised budgets is that invest to save is very difficult”

- The costs of some new technology – e.g. FreeStyle Libre™ – is seen as high compared with using blood glucose test strips (although this difference depends on the numbers of tests performed). Demand for this technology comes at a time when many CCGs are in deficit and money for investment is very limited – while more money has been promised for the NHS, this is not expected to match the long-term average rise of four per cent per annum. This is making it very hard for CCGs to approve investments that are not mandated.
- Diabetes technology is often justified as **‘invest to save’** but that is hard within the current funding system. The benefits from enabling people to control their blood glucose levels more effectively are considerable but the full impact of these will be spread over a period of years, if not decades; and sometimes the costs may appear in different budgets to the benefits.

- NHS bodies find it hard to deal with a return on investment over lengthy periods when they are struggling with annualised budgets.
- Commissioners may fear taking wrong turns on technology and wasting money. The history of NHS investment in technology has not always been smooth – think various IT projects and even the early days of telehealth. Experiences where technology has not delivered on its promises may make commissioners cautious.

The data may not be available to build an economic model to justify investment in new technology. This can be particularly true of **‘real life’** data. The rapid pace of development of new technology can also mean there is a limited evidence base available before people are requesting access to it. NICE, for example, may not have carried out health technology assessments because there is limited data to appraise.

- There are challenges to disinvestment in other areas of spending which could release money for investment in new technology. The issues behind this are often complex and cultural but can mean money continues to be spent on areas which do not deliver **‘value’**. One possible disinvestment could come from allowing more flexibility from guidelines so a person with diabetes and the clinicians set personalised targets, for example, for elderly people.

VARIATION IN COMMISSIONING

“We have to stop thinking that the NHS operates as a rational decision making system. It’s more like a jury”

- There has been variation in CCGs’ approaches even when there have been recommendations from ABCD and position statements from Regional Medicines Optimisation Committees. This has been most obvious with FreeStyle Libre™ where a year after its **‘approval’** around a quarter of CCGs were still not supporting its use.

- Forcing people and their clinicians to use individual funding requests to get access to new technology has a hidden cost in the time that is taken up with applications, even when they are successful. It is also inappropriate for a technology endorsed by NICE for a specific patient group as use in these groups could not be considered **‘exceptional’** and ought not to require an IFR.
- CCGs’ structures may not be used to handling requests for non-pharmaceuticals or understand the role of Regional Medicines Optimisation Committees. This can lead to lengthy toing and froing before technology is approved.
- In some areas criteria have had to be accepted which are different from the nationally proposed ones. For example, secondary care clinicians are not being given the autonomy to prescribe FreeStyle Libre™ when people fall into the group covered by the RMOC position statement. This has slowed down uptake and restricted spend.

BEHAVIOUR OF PEOPLE WITH DIABETES

“People in your clinics will normalise their experience. I was having a lot of severe hypos in a year but I brushed them under the carpet.”

“As much as I had been supported and helped and steered by clinicians, there was nothing quite like hearing it from people who were walking in my shoes.”

- People living with diabetes often spend a great deal of time trying to control their blood glucose levels – one GP described as **‘like having a second job’**. They need head space to get to grips with new technology and get the maximum out of it.

The current system can **‘reward’** people for **‘bad’** behaviour – for example, some criteria ensure people with more time out of range on their blood glucose can access new technology while those who are achieving tight control won’t be eligible under the RMOC criteria. Less restrictive eligibility criteria have been used in Edinburgh with early evidence of benefit.

- There may be people who remain hidden from parts of the system – for example, people with type 1 who do not attend specialist care. Technology may offer a way to bring them back into the system provided they can be identified.

HEALTHCARE PROFESSIONAL SKILLS SET

Many healthcare professionals may not feel equipped to use the new technology in diabetes. They will need education if they are to help people access this as soon as it is available. More consistent knowledge across healthcare professionals should help to reduce inequalities in access.

THE EVIDENCE BASE

- Some new technology will have a limited evidence base and may not have been assessed by NICE through a health technology assessment. This can make some commissioners reluctant to commission the equipment. Often the speed of development makes it hard for the evidence base to keep pace – there may not be any randomised controlled trials, for example, because of the time they take to organise, carry out and assess.
- While the medical world may still be assessing the evidence, people are likely to be several steps ahead having heard about new technology through social media and patient forums. Demand from people comes before formal approvals and assessments.

7. SOLUTIONS

REDUCING VARIATION IN COMMISSIONING

- A NHSE/Diabetes UK working group on technology has helped to define what technology is used and what criteria are applied. This could help to develop a national position on key technologies. See: <https://www.diabetes.org.uk/position-statements-reports/specialist-care-for-children-and-adults-and-complications/type-1-technology-guidelines>.
- Personal budgets for people with type 1 diabetes could play a part in helping them to choose the technology or other intervention they feel would most benefit them.

- The growth of Integrated Care Systems and Sustainability and Transformation Partnerships could help. Whole system budgets could overcome the problem of benefits and costs accumulating in different bits of the system.
- Patient Reported Outcome Measures (PROMS) for diabetes could help justify expenditure on technology. These could be piloted in areas which have growth funds available: these also tend to be more deprived areas so could potentially reduce the unequal access to technology which currently exists.
- Evidence based on real life usage of some of this technology could be helpful. E.g. the ABCD Nationwide FreeStyle Libre™ Audit.

Cost

“How do you alter mind sets to think about value at a time when people are being asked to save money?”

“Would personal budgets help? They could enable people to choose the technology they preferred.”

- There is a need to move the discussion from the costs of new technology to the value that it brings – including those benefits which will be delivered further down the line as better glucose control leads to fewer complications. To be successful, this needs to bring together clinicians and the finance team to drive a shared understanding of both costs and benefits.
- Integrated Care Systems may offer opportunities to invest in new technology. ICSs should help to break down the NHS’ ‘silo’ budgeting where organisations only care about the costs and benefits they incur rather than the broader picture for the local population. ICS partners may be better placed to back investment now which will offer returns in the future – such as a reduction in complications. Their strong focus on keeping people as well as possible and out of hospital should drive support for technologies which improve glucose control and reduce complications.
- ICSs may also overcome some of the challenges of the current NHS payment system. The national tariff payment system can reward

hospital-based activity rather than good management, and can not cope with consultations not carried out as a traditional outpatient appointment. With their shared control totals and aligned incentives, ICSs may be able to overcome this.

- There is an opportunity to look at the combined budget for type 1 and type 2 diabetes care and shift money between them. For example, implementing evidence-based prescribing of blood glucose monitoring strips in people with type 2 diabetes, specifically not prescribing for those who are on diet alone or metformin monotherapy.

WORKLOAD & WORKFORCE

Not all consultations need to be face-to-face – some can be virtual or remote. This may reduce workload but could also be a means of releasing money to pay for new technology, provided NHS payment systems ensure that trusts don’t face a perverse incentive to carry on with outpatient appointments.

- There is no one size fits all approach to the right number of outpatient appointments. Moving to a system based on appointments when the person or their consultant feels they need to be seen could reduce workload and also drive improved outcomes – as well as being better for people who want to carry on with a normal life without the disruption of an unnecessary hospital visit. Cancelled outpatient appointments in particular were seen as de-motivating people.
- As the number of diabetes cases increases, there may be opportunities for other healthcare professionals such as pharmacists to play more of a role in the management of type 2 diabetes freeing up consultant and potentially GPs to deal with more complex cases.
- It is important GPs are seen as part of the team supporting people with type 1 diabetes as they will be responsible for ongoing prescribing. This gives GPs the opportunity to reinforce key messages and respond to any health concerns.

There may be a case for up-skilling them to maximise the benefits of these interventions. This could release more consultant time to be spent with people most in need of their input and in developing personalised care plans with them.

- A lead clinician for diabetes in each network, potentially supported by a diabetes specialist nurse and a GP, could support the grassroots. Ultimately change needs to be embedded and sustainable. While charismatic committed leaders may play a key role in setting up a service or getting access to new technology, should they move on or take a step back the work should be capable of carrying on without them.

EDUCATION

- Education, especially around new technology, will be important in helping doctors and other healthcare professionals care for people with diabetes. An overriding principle is that education needs to be aimed at the right level for different healthcare professionals to reflect their responsibilities and involvement with people with diabetes.
- Much training for those who just need basic information could be delivered through online modules. For those who need to operate technology, initiate use or interpret results and change treatment, face-to-face teaching might be more appropriate (*possibly at a network level*). Simulation training may also play a part, and company specific training will continue to be important.
- Up-skilling other healthcare professionals to help with access to new technology and to deal with any problems in using it could release consultants' time to spend with more complex cases. The pace of change in diabetes technology is such that education may be an ongoing task or at least **'topped up'** regularly.
- The corollary to healthcare professional education is education for people to help them manage their condition and ensure that they

get the most out of technology. Some will also need support when they are struggling – which may come from the manufacturers who often provide device-specific education.

- The psychological effects of being diagnosed with diabetes and having to manage a lifelong condition can be severe, and may not be fully addressed within current services. A measure of psychological distress should be routinely used to identify people who need more support; healthcare professionals should be trained to identify and address these.

IT

- People are increasingly gathering large amounts of useful data about their condition from new technology. There needs to be a means of transferring this into the person's record so that their consultant or GP can access it and incorporate it into clinical decision-making.
- More mundanely, a reduction in **'double entry'** in patient records could help reduce workload for healthcare professionals.

TECHNOLOGY

"There's a cohort of people with type 1 who don't go to secondary care.....technology may offer a way to get them back into the system."

- The ten year plan may stimulate the introduction of new technologies in the NHS and drive the adoption of them to reduce demand for expensive treatments further down the line.
- While many technologies are incremental, building on what has gone before; a disruptive innovator could arise in diabetes as it has in other parts of the NHS – for example, GP at Hand. The introduction of a radical new technology – which either has substantial benefits for people or transforms the cost base for managing diabetes – could impact on existing technologies and effectively make disputes about their availability redundant. However, the ability of the NHS and its payment systems to deal with this may be limited.

8. WHAT CAN BE LEARNT FROM OTHER SERVICES & TEST BEDS

“Organisations don’t make decisions, people make them.”

“There are no short cuts or magic solutions. Everything requires hard work and persistence.”

The National Osteoporosis Society (NOS) has established an approach to securing new resources for a local Fracture Liaison Service (FLS) that has seen 22 new services and seven service improvements funded over the past three years. Tim Jones from the charity presented a summary of these techniques, all of which are transferable to the diabetes challenge.

- Publish clinical standards – which services can compare to as a start point for creating the case for change.
- Translate clinical evidence into condensed and powerful messages for those funding services. The evidence should focus on showing that new technology works for people and for the health system.
- Secure endorsement from the centre – this comes from having good public relations to influence the messages put out by national agencies. In the osteoporosis case this took the form of a consensus statement from Public Health England combined with a pathway published by NHS RightCare for osteoporosis, both aimed directly at commissioners.
- Work with the complexity – in the NHS in England there are a number of organisations that can affect local decisions on funding. Examples relevant to diabetes include NHS RightCare, the **‘Getting It Right First Time’** programme; and Academic Health Science Networks.
- Make the business case easy – a business case will be needed to justify investment in new technology. The NOS has developed tools that can turn out tables to show costs and benefits of investment in any health economy in the UK in just three **‘clicks’** plus clear text to be used in

local business case templates. The charity’s small team also help with polishing and presenting skills. This means that the amount of work required by local champions to put together a compelling case and carry it through to decision becomes manageable. The ongoing support builds confidence and increases the likelihood of getting approval.

3 click model for service costs

Year	FLS costs	Prescribing costs	Benefits (NHS + social care)	Net benefit
2018	£132,020	£8,178	£138,216	-£1,982
2019	£132,020	£15,539	£235,732	£88,173
2020	£132,020	£22,163	£349,776	£195,593
2021	£132,020	£28,125	£409,346	£249,201
2022	£132,020	£33,491	£449,840	£284,329
All years	£660,100	£107,497	£1,582,910	£815,313

Number of follow ups appts. at 12 months: 455

Cost per patient: £134

Copyright: National Osteoporosis Society FLS Pathway Costing Tool, August 2017

- Measure the improvement – measurement is one of the constants of service and quality improvement. Many improvements are perceived to have failed if they do not deliver cash savings promised in the business case. It is up to the clinical team to make sure that managers and payers understand what is going to change and over what period. In diabetes care the change is measured in improved clinical processes and clinical markers at the person or cohort level whereas the financial benefit is in the form of clinical events that do not take place (*unplanned admissions, complications, and so on*). Only the former is amenable to measurement and within the power of clinical teams to deliver.
- Develop leaders – the ABCD is an organisation of leaders in the diabetes field. The ABCD reputation can be harnessed to a range of workshops, learning modules and support that helps to develop leaders who have the confidence and stamina to make change happen. The NOS has shown that training leaders in developing and presenting business cases can lead to improved services and more investment in staff, facilities and technology.

Engaging with clinicians using 3 approaches

Individual	Clinical team	Clinical community
 <p>Aim Embed continuous improvement into service</p> <p>NOS offer On-line education Individual coaching Mentoring and advice Action learning sets Essential tools</p>	 <p>Aim Reduce the barriers for change Develop the project team Embed continuous improvement</p> <p>NOS offer Bespoke site-specific workshops Facilitate engagement with managers and payors Essential tools Direct support for technical tasks e.g. business case Rehearsal for presentations Formal peer review</p>	 <p>Aim Motivate for improvement Reduce the perceived barriers to change</p> <p>NOS offer Regional workshops Champions Network Peer contact Downloadable tools</p>

- Focus on people, not structures – it is a truism that structures (*hospitals, boards, CCGs*) cannot make decisions, only people can. There are people in your trust or health board who may have the power and the desire to help you get what you want for your patients. It might be the director of nursing, director of service transformation or whoever. Moreover, the NHS is transitioning, not always smoothly, into new structures where the person most able to help you may not work in your trust or in one of the many CCGs that pay for care in your trust. Networking and intelligence gathering are important soft skills.

TEST BEDS

NHS England is funding three schemes to help self-management of diabetes as part of the second wave of ‘**test beds**’. These sites will benefit from £2m in funding to new approaches using digital technology.

The three successful bids were

- South West London Health and Care Partnership – using a combination of new technologies to empower people to self-manage more effectively.
- North East Hampshire and Farnham CCG – self-management support for lifestyle change, delivered through digital solutions.

- Greater Manchester Strategic Clinical Networks – testing a one-stop digital platform to deliver support and education to help people manage their condition more effectively.

9. RECOMMENDED ACTIONS FOR STAKEHOLDERS

THE NHS CENTRALLY/THE GOVERNMENT

- Adopt a national approach to new technologies to ensure they are rapidly available across the country without unwarranted variation (*a ‘**post code lottery**’*), using criteria developed with clinical professionals.

This could be supplemented by developing a methodology for local health economies to make a reasoned decision on objectives of using new technology (*the ‘**What**’*) and make the appropriate investment decisions (*the ‘**How**’*) with template tools e.g. a Business Case.

- Look again at NHS funding systems and their ability to cope with new technologies. GP at Hand has shown how existing systems can’t easily cope with a disruptive innovation or new models of care delivery.
- When introducing new technology, assess its potential impact on health inequalities and how it can reach those who are deprived or face other challenges. Uptake of and access to some diabetes technology has been strongest among the most affluent sectors of society.

FOR CLINICAL DIABETES NETWORKS

- Look out for and support clinical champions who will drive forward change in their own organisation but may benefit from contact with others in a similar position. For example, develop a cadre of ‘**Technology Champions**’ in diabetes.
- Adoption of new technologies often requires additional training for clinicians; for some groups of healthcare professionals, this may be best delivered on a regional basis.

- Consider developing or adopting business cases to support the adoption of new technologies where there are benefits to people with diabetes. Adopting new technologies over a wider area than a single trust can mean a reduction in unwarranted variation and postcode lotteries.
- Argue for network wide resources to support clinicians such as a lead clinician supported by a specialist nurse.

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- Identify clinical leaders who are either *'Technology Champions'* in diabetes regionally and/or diabetes clinicians with an interest in new diabetes technologies.
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- Look at how data generated by people with diabetes can be linked into the electronic patient record and made available to all clinicians dealing with them.
- Invest in IT systems which minimise the amount of time clinicians spend re-entering data and details: this will allow them to spend more time treating people with diabetes.
- Consider providing training to people around self-management and also psychological support. Supporting people in self-management improves the use of resources and reduces waste.

FOR INDIVIDUAL CLINICIANS

- Identify the training needs of yourself and your team, ideally in advance of new technologies being introduced.
- Be prepared to argue for disinvestment of parts of services which are not meeting the needs of people with diabetes or where resources (*both money and staff*) would generate more value if used elsewhere.
- Consider how your time and that of those around you is best spent; elements of the care of some groups of people with diabetes could be devolved to other healthcare professionals allowing you more time with people with diabetes who are complex or experiencing difficulties with diabetes management. This may involve up-skilling some staff.
- Be prepared to change practice around the number of outpatient appointments and using virtual clinics utilising video or telephone consultations. Both can save time but may also suit peoples' lives better. For example, reduce time off work, travel, parking charges etc.
- Make use of the powers and freedoms that you have to effect change. Don't wait for permission; many changes are not costly and can be initiated by clinicians.

10. CONCLUSION

“The future is here – just not evenly distributed.”

While the current commissioning battles may be about flash and real-time CGM, there are other new technologies in development, coming ever closer to the goal of an artificial pancreas.

Some of the new technology coming on-stream will allow people almost to forget that they have diabetes. It is likely there will be massive demand from people for this and their GP or consultant will be asked about availability – possibly even before they have full information on the technology.

Healthcare professionals need to ensure they are up to speed on technological developments and have the knowledge and confidence to help people with diabetes. The training they will need will depend on the role they play in caring for people with diabetes but the ABCD Diabetes Technology Network – UK will play a big part in devising and delivering appropriate training.

But the NHS centrally – and ultimately the Government – needs to respond to the pace of change in technology for diabetes – and many other clinical areas. The rapid arrival of new technology will also mean much of it has not been subject to randomised controlled trials or will not have been formally assessed by NICE. There may still be unanswered questions over costs and benefits. Technology will continue to challenge an NHS which is not currently set up for rapid adoption.

11. LIST OF ATTENDEES

▪ Mr Paul Cheverton	Regional Manager	Dexcom
▪ Ms Lindsay Cook	Wicked Minds	Roche
▪ Dr Jackie Elliot	Senior Clinical Lecturer in Diabetes & Hon Consultant	Sheffield
▪ Mr Gareth Evans	Value Based Healthcare	Medtronic
▪ Dr Fraser Gibbs	Consultant Physician & Honorary Clinical Lecturer	Edinburgh
▪ Ms Kathy Gibbons	Project Officer	Gloucestershire ICS
▪ Ms Jamina Gibson	Senior Marketing Manager	Roche
▪ Sir Muir Gray	Executive, Oxford Centre for Triple Value Healthcare	Oxford
▪ Dr Rob Gregory	Consultant Physician in Diabetes, Endocrinology & General Medicine	Leicester
▪ Dr Peter Hammond	Consultant Endocrinologist	Harrogate
▪ Dr Kathy Hoffman	GP, Diabetes Clinical Lead	Bucks CCG
▪ Ms Sam Howard	Market Access Director	Abbott
▪ Dr Sufyan Hussain	Locum Consultant Physician in Diabetes, Endocrinology & General Medicine	London
▪ Dr David Jenner	GP, Former CCG Commissioner	North Devon
▪ Mr Clive Johnstone	Managing Director	MMS
▪ Mr Tim Jones	NHS Commissioner & Commissioning Lead	NOS (MMS)
▪ Ms Nikki Joule	Policy Manager, Diabetes UK	London
▪ Mr Mike Kendall	Person with Type 1 Diabetes	Bristol
▪ Dr Alistair Lumb	Consultant Diabetologist	Oxford
▪ Mr Liam McMorrow	Person with Type 1 Diabetes	Oxford
▪ Ms Alison Moore	Medical Writer	MMS
▪ Dr Dinesh Nagi	Chair, ABCD	Wakefield
▪ Dr Sam Rice (<i>by phone</i>)	Consultant Physician & Endocrinologist	Llanelli
▪ Mr Michael Sobanja	Policy Director, Former Chief Executive	NHS Alliance (MMS)
▪ Dr Emma Wilmot	Chair, DTN	Derby
▪ Ms Nicola Wojciechowicz	Marketing Director	Abbott

INCREASING THE UPTAKE OF NEW TECHNOLOGIES IN DIABETES: RECOMMENDED ACTIONS



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