Box 1. A guide to testing

1 Does the patient have capacity?

2 Is the lack of capacity likely to be temporary?*

3 Has the patient recently been tested for blood-borne viruses? A thorough search of both primary and secondary care records is necessary before proceeding further.

4 If prolonged lack of capacity, does the patient have an attorney or a deputy with the legal authority to make decisions for him or her?**

5 If there is no legal deputy then speak to friends and family to establish whether the patient would have ordinarily objected to being tested for this purpose?

6 If there is no recent test result available and there is no evidence that the patient would have ordinarily objected then testing can proceed

7 To minimise harm, testing should be performed on a recently stored sample or if a new sample is needed it should be taken at the same time as blood is taken for other clinical purposes.

8 Once the patient regains capacity they should be advised of the needle-stick injury and any testing that was undertaken and appropriate information should be provided so that the patient can make an informed decision about whether to receive the result.

9 It should be accepted that some patients may not want to know the results but it must be remembered that consent is an ongoing process and a patient who declines to receive the result at a certain point may decide otherwise in the future and adequate support should be put into place so that a change in consent can be accommodated.

*There is no specific time frame for 'temporary' but a patient undergoing anaesthetic for a surgical procedure should be considered in this category and in other situations clinical judgement should be exercised.

**Being next of kin alone does not confer legal power for decision making.

British Medical Association (BMA) issued guidance in 2016 to fill this gap.[3] This letter sets out to summarise the ethical arguments that underpin the BMA guidance, illustrate how this guidance could be put into practice and raise debate on this issue.

There are two main strands to the guidance, the first focuses on clinical best interest. It may be argued that for most individuals it is in their best interest to know whether they have a BBV as they are likely to benefit from current or future care of that infection. Often the question asked by the clinician at the time of such an incident is 'will it influence current management'; however, the guidance encourages the clinician to think more broadly and holistically, which makes the question of the timeliness of testing redundant.

The second strand focuses on the broader best interest of an individual, which encompasses a much more person-centred approach. The limited evidence available suggests that only the minority of patients do not give consent for BBV testing when they do have capacity.[4] So, why might an individual be tested primarily for the interests of another? There are several ethical imperatives that may explain such altruism and these include altruism in itself, reciprocity of care and recognition of the importance of the relationship between the patient and healthcare worker, for the greater good of all patients as all patients would benefit from the health professional being appropriately treated and being able to continue working and fulfilling the duties of the responsible citizen.

The guidance invites the user to construct a balance sheet of benefits and dis-benefits of testing, diligently following the steps listed in Box 1. In essence, the BMA guidance highlights that testing that benefits a third party and patient best interest are not mutually exclusive and that patients who lack capacity must not have their best interests neglected. ■

Conflicts of interest

The author has no conflicts of interest.

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Sodium glucose co-transporter 2 inhibitors successfully attenuated seasonal change of glycated haemoglobin A1c

Previous studies suggested that glycated haemoglobin (HbA1c) levels are highest in winter and lowest in summer.[1–4] Potential susceptibilities to seasonal change of HbA1c include inappropriate dietary calorie intake and insufficient physical activity in winter. In our hospital, the majority of diabetes patients are farmers and their physical activity is relatively lower in winter (agricultural off-season) than in summer (busy farming season). These patients face difficulties in adapting a seasonal diet modification concomitant with the variation in physical activity.

In this study, we examined the effect of sodium glucose co-transporter 2 (SGLT2) inhibitors on patients who experience seasonal change of their diabetic control. Because those patients also tend to increase body weight, SGLT2 inhibitors were considered as an addition to their current medications to minimise seasonal variation of HbA1c in winter. Our study protocol was reviewed and approved by our hospitals' review boards according to the Declaration of Helsinki. Written informed consent was obtained from each participant. This clinical study involved 30 patients with type 2 diabetes mellitus whose HbA1c showed seasonal change for the previous 3 years and got worse in the autumn of 2015. Patients were prescribed an SGLT2 inhibitor in addition to their current medications. Patients visited the hospital for follow-up examination once a month, and blood glucose levels and HbA1c levels from the same blood samples were measured. In parallel, urinary glucose levels were determined in spot urine samples at each visit. Body

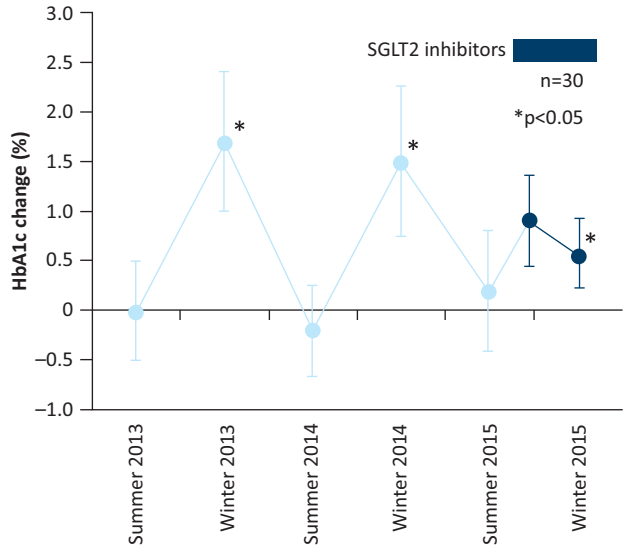

Fig 1. SGLT2 inhibitor improved seasonal change of HbA1c. Seasonal changes of HbA1c in 30 subjects are shown. The change of HbA1c from summer 2013 was obtained. For summer, we calculated the mean value of three HbA1c measurements from June through August and for winter we calculated the mean value of three HbA1c measurements from December through February. SGLT2 inhibitors were started at the beginning of autumn (mean value from October and December). Error bars represent the standard deviation. The winter HbA1c values were significantly lower in 2015 than 2013 and 2014 (*p<0.05). HbA1c = glycated haemoglobin; SGLT2 = sodium glucose co-transporter 2

weight, blood pressure and estimated glomerular filtration rate (eGFR) were also measured at each visit. Plasma glucose and HbA1c concentrations were determined as previously reported.[5] The median duration of type 2 diabetes mellitus was 4.7 (range 3.5–18.7) years. All patients reported that they had no infections during the observation period, including any common cold symptoms. We observed no statistically significant change in eGFR, body weight or systolic or diastolic blood pressure after SGLT2 administration.

Seasonal change of HbA1c in the previous 3 years is shown in Fig 1. Their HbA1c was lower in summer and higher in winter before the initiation of SGLT2 inhibitors. SGLT2 inhibitor administration could avoid the tendency for HbA1c to get worse towards winter season as indicated.

Seasonal change of diabetic control triggers treatment difficulties because these variations are usually accompanied by excess calorie intake and a decrement of physical activity.[1–4] If these patients are then administered excess amounts of either endogenous or exogenous insulin without correcting their excess caloric intake and/or improving their decreased physical activity, they will experience inappropriate body weight gain although their blood glucose control may be improved. In this study, we added SGLT2 inhibitors to the patients' current medication and observed whether SGLT2 inhibitor administration could attenuate the tendency for HbA1c to get worse towards winter season. We did not face any hypoglycaemic episodes and body weight gain by the addition of SGLT2 inhibitors. Furthermore, patients experienced neither dehydration nor cerebral infarction. SGLT2 inhibitors are a good option to treat seasonal change of HbA1c levels. ■

Conflicts of interest

The authors have no conflicts of interest to declare.

Author contributions

TS, EY, YN and SO took care of patients in this study. SO and MY analysed the data and prepared the manuscript.

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Poor knowledge of safety aspects of long-term steroid use among patients and healthcare professionals

Introduction

Hypoadrenalism (primary and secondary) affects 4/10,000 individuals.[1] But the commonest cause of hypothalamo-pituitary-adrenal axis suppression is exogenous steroid use, and about 1% of the UK population are on such therapy.[2] These steroid-treated subjects have a higher incidence of adrenal crises (15.2/100 patient years) compared with patients with Addison's and pituitary disease. Mortality is increased in hypoadrenalism and 25% die of an adrenal crisis.[2] These crises should be preventable with education of patients and healthcare professionals (HCPs). However, studies show significantly poor knowledge in both groups,[3,4] leading to failure to increase