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### Inpatient diabetes for junior doctors: a case based approach

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**Background:** The prevalence of diabetes among adult inpatients in UK hospitals is increasing. Results from participation in the National Diabetes Inpatient Audit have shown an annual rise from 2010 of 14.6% to 18% in our 2014 'unofficial' inpatient trust audit. The majority of patients with diabetes are managed by non-diabetes trained teams. Audit results regularly highlight areas of risk that need increased educational emphasis for junior doctors. Accessing these doctors to offer diabetes training is challenging due to the nature of shiftwork and clashing commitments.

**Aims:** To increase the knowledge, competencies and confidence of junior doctors who manage patients with diabetes.

**Methods:** Between June 2013 and September 2014, junior doctors trust-wide were invited to attend inpatient diabetes evening meetings organised by the diabetes team. After a meal, an interactive education session was delivered by the author. A fictitious case was presented which covered key areas of risk in managing diabetes, such as hyperglycaemia, insulin infusion use and insulin prescribing.

**Results:** Over the course of four educational meetings, 98 junior doctors attended for training. Feedback was positive, with the case based approach valued by all. Pertinent take home messages were gleaned on reviewing formal feedback from attendees.

**Conclusions:** Providing an educational opportunity outside of working hours can offer an improved learning environment free from everyday workplace distractions and pressures, as well as create a comfortable environment for group based learning.

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### Creating a legacy effect: HbA1c 1 year after Type 2 diabetes group education in West Hampshire

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**Aims:** The UKPDS study demonstrated that achieving good control of blood glucose levels early in the course of the disease buys benefit many years into the future even after glycaemic control has deteriorated. Our aim was to determine what happens to HbA1c levels in the first year after attending Type 2 diabetes group education for people newly diagnosed with Type 2 diabetes in West Hampshire.

**Methods:** We collected HbA1c data for the first 100 people to complete a West Hampshire Community Diabetes Service Type 2 diabetes group education course for people newly diagnosed with Type 2 diabetes since January 2013. HbA1c data were collected at the time of referral and 1 year after attending the course. Data were compared using a paired Student's t-test.

**Results:** HbA1c data at referral and 1 year after attending the course were available for 74 individuals. Median (interquartile range) HbA1c at referral was 61 (47, 77)mmol/mol and at 1 year was 48 (42, 58)mmol/mol giving a mean (SD) difference of 14 (26) mmol/mol,  $p < 0.01$ .

**Conclusion:** There is a significant improvement in HbA1c in the first year following referral for Type 2 diabetes group education in West Hampshire. This probably reflects the efforts both of people living with diabetes and of their healthcare professionals and

should result in a reduction in diabetes related complications in the longer term. We now need to determine if the same improvements in HbA1c are seen in those people choosing not to attend a Type 2 diabetes education course on which they were offered a place.

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### How informed are patients about their insulin pen needles?

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**Aims:** 3.2 million people live with diabetes in the UK, and approximately 800,000 are on injectable therapies. Patient education regarding self-injection techniques is essential to achieve optimal glycaemic control and to avoid long-term complications. This study assessed patient awareness and practices of insulin pen needle use as recommended by the Forum for Injection Techniques.

**Methods:** An anonymous questionnaire focusing on pen needle use and safe disposal was completed by 100 patients attending diabetes clinics at a university hospital.

**Results:** Of the 100 participants, 55% people had Type 1 diabetes. 25% re-used their needles and of these 64% had Type 1 diabetes. 76% people who re-used their needles had lived with diabetes for over 10 years (duration range up to 50 years). 44% reported inconvenience and 16% people attributed altruistic economic reasons as the reason for needle re-use. Two out of three people (64%) re-using needles experienced pain. 17% did not prime the needles and 11% injected through their clothes. Only 44% people were aware of leaving the needle in place for 10 s whilst injecting insulin. A third (36%) did not have access to a sharps bin, and consequently disposed used needles with general waste, despite the knowledge of safe disposal.

**Conclusion:** Education regarding insulin pen needle use requires ongoing emphasis by clinicians, specialty nurses and diabetes charities. Inconvenience played a large role in re-use of needles, despite patients being aware of its consequences. Similarly, patients were aware of safe disposal methods but adherence was low. This highlights the need for repeated patient education addressing such issues.

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### Vocational driving, diabetes management and driving guidelines in people with Type 2 diabetes

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**Aims:** To examine the behaviour of vocational drivers with Type 2 diabetes with respect to driving guidelines, self-monitoring and hypoglycaemia.

**Methods:** Between June and September 2014, 1,569 UK drivers with Type 2 diabetes completed a 15 min online interview in relation to driving and diabetes.

**Results:** The cohort comprised 457 social drivers (shopping/school run), 590 commuters (>45 min journey) and 522 vocational drivers. 52% of respondents receiving insulin secretagogue (ISG) based therapies (sulphonylureas/glinides) and 16% on insulin were vocational drivers. Drivers on ISGs were most likely to work