Commentary

Diabetes—big problem, little confidence

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The first time I increased a patient’s insulin dose, I lay awake all night worrying he might become hypoglycaemic. I was a house officer and had had little training in the practical management of diabetes. The patient slept well and safely.

It is estimated that 7.4% of the English population over 16 years of age have diabetes and that this will increase to 9.5% in 2030. In England, 12% of deaths in people aged 20–79 years can be attributed to diabetes. Hospital in-patient beds of 10–20% are occupied by people with diabetes. A cross-sectional audit of adults with diabetes in 219 UK hospitals in 2009 included 14 259 in-patients. In all, 19% had drug errors and 14% diabetes management errors. After admission, 124 patients developed new diabetic ketoacidosis (DKA), and 303 developed new foot problems. The 2010 audit is currently in analysis. Results will be available by named hospital on the National Diabetes Information Service (NDIS) web site in April 2011. The National Patient Safety Agency (NPSA) has now received over 16 000 reports of insulin incidents, mostly from hospitals. They included deaths and serious harm. In 2010, the NPSA issued a Rapid Response Report requiring action to improve prescribing and administration of insulin. This is linked to a certificated e-learning course ‘Safe use of insulin’ and all health-care professionals should complete this unless they have received equivalent training.

The management of diabetes requires expertise and precision. Diabetes care has become increasingly complex. Mistakes are made not only with insulin, but with the increasing number of non-insulin hypoglycaemic drugs. Most trainees are unfamiliar with exenatide, or pioglitazone, for example. They may not realise that the latter can precipitate cardiac failure and increase fracture risk. They may not realise that warfarin may increase the hypoglycaemic effect of sulphonylureas. But trainees are only too aware of the complexity of diabetes care.

The commendably extensive study of 2149 doctors by George et al. provides worrying evidence that trainees in the UK lack confidence in managing diabetes. Just 27% were fully confident in diagnosing diabetes and that this will increase to 9.5% in 2030. In England, 12% of deaths in people aged 20–79 years can be attributed to diabetes. Hospital in-patient beds of 10–20% are occupied by people with diabetes. A cross-sectional audit of adults with diabetes in 219 UK hospitals in 2009 included 14 259 in-patients. In all, 19% had drug errors and 14% diabetes management errors. After admission, 124 patients developed new diabetic ketoacidosis (DKA), and 303 developed new foot problems. The 2010 audit is currently in analysis. Results will be available by named hospital on the National Diabetes Information Service (NDIS) web site in April 2011. The National Patient Safety Agency (NPSA) has now received over 16 000 reports of insulin incidents, mostly from hospitals. They included deaths and serious harm. In 2010, the NPSA issued a Rapid Response Report requiring action to improve prescribing and administration of insulin. This is linked to a certificated e-learning course ‘Safe use of insulin’ and all health-care professionals should complete this unless they have received equivalent training.

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The commendably extensive study of 2149 doctors by George et al. provides worrying evidence that trainees in the UK lack confidence in managing diabetes. Just 27% were fully confident in diagnosing diabetes, 55% in diagnosing and managing hypoglycaemia (a medical emergency), 43% in diagnosing and managing DKA (another medical emergency) and 27% in managing intravenous insulin. Regarding management of diabetes, asked whether they would act, 24% of respondents would ‘not often, rarely or never’ take the initiative to improve diabetes control, 64% said this for adjusting oral hypoglycaemic therapy and 43% for adjusting insulin. The fact that 57% would adjust insulin is worrying, bearing in mind their admitted lack of confidence about this drug. Questionnaire studies are, by definition subjective, but so is self-confidence! This is not solely a British problem. An American questionnaire study of 52 resident physicians found that 48% were ‘not at all comfortable’ with intravenous administration of insulin.

Doctors need appropriate confidence in their knowledge and how to apply it to the care of each patient. Obviously one has to have acquired the knowledge in the first place! And recognizing the varied presentations of particular diseases and how to individualize treatment requires experience. There has been concern that reduced trainee hours limits opportunities for experiential learning. Awareness of the boundaries of one’s knowledge
and that there is more to know is a key factor in maintaining patient safety. Over confidence is dangerous. Lack of confidence may be safer, but only if it triggers a request for advice and stimulates learning. Lack of confidence may mean that nothing is done—‘I’ll wait until the ward round tomorrow - I don’t want to trouble Professor Hippocrates in clinic and I had better not refer the patient to the diabetes team without his permission.’ An unconfident doctor may transmit his or her unease to the patient and impede recovery. ‘Confidence and hope do more good than physic’ (Galen second century). It is not just the patient who suffers; unconfident doctors may feel anxious and inadequate.

All units in all hospitals should have access to specialist diabetes expertise. But this does not mean that the specialist team should come, sort out the patient and depart, thereby disempowering the local team. It is encouraging that 94% of trainees would often or always involve diabetes specialist teams.\(^8\) If the patient is reviewed by a diabetes consultant or registrar or a diabetes specialist nurse, the trainee should be present to learn from them. This is not always possible with current rotas.

Medical schools provide varied training in diabetes. Many students will not be attached to a diabetes firm during their clinical teaching. The UK Foundation Programme Curriculum\(^10\) does not include the word diabetes. The Core Medical Training and Acute Care Common Stem curriculum\(^11\) requires training in common aspects of diabetes care. This includes management of hypoglycaemia, DKA and perioperative care. But again, most of these trainees will not be attached to a diabetes firm and diabetes expertise in non-diabetes teams varies considerably. Some hospitals provide formal diabetes training to all trainees. Most do not. So it is not surprising that trainees lack confidence in managing diabetes. Inadequate care of people with diabetes in hospital is likely to worsen virtually in every clinical outcome regardless of the main reason for admission. It also worsens patient experience. It is astonishing that such a common, potentially dangerous but eminently treatable condition receives so little attention in the education of trainee doctors.

This unacceptable situation must improve. Every Trust responsible for training doctors should provide them with specific training in diabetes care.

Conflict of interest: None declared.

References