Aims: To assess the rate of surgery cancellation for patients with diabetes at surgical pre-assessment. To evaluate patient knowledge, awareness and management of diabetes in the perioperative period.

Methods: Data were extracted from records of patients with diabetes who were cancelled or referred for optimisation from the surgical pre-assessment clinic over a 9 month period. Eleven patients admitted for elective surgery with an overnight stay completed a qualitative questionnaire surrounding diabetes care and information they received at all perioperative stages.

Results: 6.1% of patients attending the pre-assessment clinic had diabetes. The overall cancellation rate for clinical reasons in the clinic was 13.5% (162/1,200). Of the patients with diabetes, 20.3% (26/128) had surgery cancelled due to poor glycaemic control with an average HbA1c of 10.8%. The questionnaire revealed 5/11 of patients did not feel involved in planning their diabetes care prior to surgery and 7/11 did not know what to expect during hospitalisation.

Conclusions: Poor glycaemic control is a major contributor to clinical cancellations of surgery in our trust. Patient awareness of the impact of glycaemic control on surgical outcomes is variable and many patients do not feel involved in this process. To address this, our multidisciplinary team and patient focus group have designed and implemented a patient-held perioperative diabetes passport, which is being piloted to educate and empower patients requiring surgery.

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Real-world evidence on the disparities in prescribing of dipeptidylpeptidase-4 inhibitors in UK primary care

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Aims: Dipeptidylpeptidase-4 (DPP-4) inhibitors are recommended second- or third-line therapy in Type 2 diabetes and have become widely prescribed in primary care. We present a description of their current use and prescribing trends in UK primary care.

Methods: A cohort of people with Type 2 diabetes (N = 34,278) was identified from the University of Surrey – Lilly Real World Evidence (RWE) centre database, using routinely collected primary care data. Monthly prescription data were extracted from primary care records on the use of DPP-4 inhibitors in this group. We report prescription numbers over time and the demographics of people prescribed these medications.

Results: We found DPP-4 inhibitors were commonly prescribed with 6,306 (18.4%) people with Type 2 diabetes initiated on them since January 2008. Prescription rates are continuing to climb with a maximum rate at the end of our study period (March 2015) of 1,108 prescriptions per 10,000 people with Type 2 diabetes per month. The mean age of those prescribed DPP-4 inhibitors was 63.5 (SD 12.3) years with a mean body mass index of 32.1 (SD 6.2) kg/m^2. People living in areas of highest deprivation were less likely to be prescribed DDP-4 inhibitors (least deprived two quintiles 17.1% of people prescribed a DPP-4, 95% confidence interval 16.7–17.5%; most deprived three quintiles 20.3%, 95% confidence interval 19.8–20.9%).

Conclusions: DPP-4 use is now common and continues to increase. Use of these medications is lowest in the most deprived areas where diabetes control is often worst.

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The economic burden and mortality of recurrent diabetic ketoacidosis: a 3 year cost analysis and mortality follow-up at a district general hospital

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Aims: For a small but high risk sub-population of Type 1 diabetes patients, self-management is extremely difficult and characterised with recurrent diabetic ketoacidosis (rDKA), at potentially high cost. Our aims were to describe this population and calculate healthcare costs and mortality.

Methods: A retrospective analysis of DKA admissions between April 2012 and March 2015 for rDKA patients at Warrington Hospital managed by adult diabetes services. rDKA was defined by ≥2 DKA admissions over the study period. Costs were calculated using local tariff agreements with the clinical commissioning group.

Results: 47 patients (53% male, all White British), median age 33 (range 16–77) years, had 167 DKA admissions [median 2 admissions/patient (2–12)] with bed day occupancy of 718 days [median 2 days/episode (0–34)]. Cost for DKA episodes totalled £254,205 (~ £1,803/patient/year). 14 patients (29.8%) had 20 episodes involving ICU stay [median 2.5 days/ICU stay (1–9)], representing 26.3% of total costs. Seven deaths (14.9%) occurred and five of these patients previously attended ICU. Mean HbA1c (n = 38) was 11.0% (±2.2%) and rDKA admissions tended to 'cluster' as over half (54%) of episodes reoccurred within ≤3 months from the preceding episode, in keeping with previous findings. All deaths occurred within ≤9 months of last DKA episode.

Conclusions: rDKA admissions incur high healthcare costs, exhibit temporal clustering and occur on a background of poor glycaemic control suggesting an underlying psychosocial difficulty. Patients admitted to ICU incurred proportionally more admission healthcare costs and were more likely to have died at follow-up. Redistribution of costs to psychosocial interventions would probably reduce long-term healthcare burden and reduce mortality.

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A prospective randomised controlled study of a virtual clinic integrating primary and specialist care for patients with Type 2 diabetes

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Aims: To investigate the effectiveness of a diabetes virtual clinic to enhance diabetes in primary care by developing clinical management plans for patients with suboptimal metabolic control and/or case complexity.

Methods: A prospective study with randomised allocation to a virtual clinic or usual care. Patients with Type 2 diabetes (n = 208) were recruited from six general practices in south London. The primary outcome for the study was glycaemic control; secondary outcomes included lipids, blood pressure, weight (kg and body mass index) and renal function (estimated glomerular filtration rate). Data were collected from participants' records at baseline