

per 100 000 children in 1991–1995 to Sweden's rate of 5.2 per 100 000.<sup>5</sup>

**Diagnosis:** Laser Doppler imaging of paediatric burns will enable the surgeon to determine the requirement for operative intervention within 48 hours of the burn, expediting treatment and reducing costs.<sup>6</sup> In conjunction with the use of cultured keratinocytes, the risk of subsequent scarring should be minimised.<sup>7</sup>

Antenatal diagnosis of hydronephrosis and hydroureter has assisted in our understanding of the natural history of urological disease in childhood, helping refine the indications for surgical intervention.<sup>8</sup>

**Intervention:** The safety of early surgical intervention in childhood is now well established. Many common conditions such as hypospadias are now optimally treated before the child's first birthday, requiring earlier referral.<sup>9</sup>

Minimally invasive surgery has now evolved into a useful additional technique in children, in conjunction with the development of appropriate indications, suitable instruments and specialist surgical skills.<sup>10</sup>

While brevity may be an editorial necessity, paediatric surgery encompasses many areas. Although our selection represents a personal choice, advances require active involvement and consultation with colleagues across all specialties.

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**IN REPLY:** The points made by three senior surgeons at The Children's Hospital at Westmead Hospital, emphasising important areas of progress in general paediatric surgery, are valid and point to the wide range of advancing activities in paediatric care.

Given the difficulty of covering all areas in a brief article, I am pleased that the Letters to the Editor section of the Journal provides another opportunity to broaden the discussion. □

### Impact of changing the criteria for diagnosing diabetes in Australia

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**TO THE EDITOR:** Both the American Diabetes Association (ADA)<sup>1</sup> and the World Health Organization (WHO)<sup>2</sup> have lowered the fasting plasma glucose (FPG) level for the diagnosis of diabetes from 7.8 mmol/L to 7.0 mmol/L. The Australian Diabetes Society (ADS) has also adopted the lower level.<sup>3</sup> However, these organisations differ in the procedure for diagnosis they recommend. The recent article by Hilton and colleagues<sup>4</sup> compared these procedures, with particular attention to including an oral glucose

tolerance test (OGTT). We, on the other hand, have investigated the impact of lowering the diagnostic FPG level to 7.0 mmol/L.

Data were obtained by the Geelong Osteoporosis Study from an age-stratified sample of women randomly selected from electoral rolls for the Barwon Statistical Division<sup>5</sup> and adjusted to match the national age profile. Venous FPG level was determined after an overnight fast, together with blood pressure (BP, seated) and anthropometric measurements, in 944 women aged 20–91 years (mean age, 47.5 years; SD, 17.8 years). History of diabetes was ascertained by questionnaire.

The prevalence of self-reported diabetes and diabetes defined by an FPG level of 7.0 mmol/L or higher was 4.3% (95% CI, 3.0%–5.6%; 41 women), whereas using an FPG level of 7.8 mmol/L or higher gave a prevalence of 3.8% (95% CI, 2.6%–5.0%; 36 women). With the lower cut-off level, 29% of women (12) were unaware of their diabetes, compared with 19% (7) using the higher FPG level cut-off point.

Characteristics of those identified using the lower cut-off FPG level are shown in the Table. After age-matching all patients with diabetes with control participants, diabetes was significantly associated with obesity (body mass index, >30; odds ratio [OR], 4.2; 95% CI, 1.5–11.6) and central body fat distribution (waist/hip ratio, ≥ 0.8; OR, 8.0; 95% CI, 2.3–25.9); and non-significantly associated with higher blood pressure (systolic, >140 mmHg; diastolic, >85 mmHg; OR, 2.0; 95% CI, 0.8–4.9).

The new criterion for diagnosing diabetes identifies a subgroup of the population with a high proportion of obesity and android habitus, with a tendency to higher blood pressure. The recommendation of lowering the diagnostic FPG level increases the prevalence of diabetes by an apparently small proportion, but would diagnose diabetes in an additional 34 000 women in Australia.

#### Characteristics (mean ± SD) of diabetic women (FPG ≥ 7.0 mmol/L) and controls (FPG < 7.0 mmol/L).

Characteristic	Diabetics (n = 41)	Controls (n = 903)	P*
Age (years)	65.1 ± 11.1	46.7 ± 17.7	< 0.0001
Weight (kg)	74.5 ± 16.2	68.6 ± 14.4	0.03
Height (cm)	158.6 ± 5.6	161.9 ± 6.5	0.0007
BMI (kg/m <sup>2</sup> )	29.6 ± 6.1	26.2 ± 5.3	0.001
Waist/hip ratio	0.88 ± 0.06	0.80 ± 0.07	< 0.0001
Systolic BP (mmHg)	139 ± 21	121 ± 21	< 0.0001
Diastolic BP (mmHg)	83 ± 16	76 ± 12	0.007

\* t test. FPG = fasting plasma glucose; BMI = body mass index; BP = blood pressure.

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### Gestational diabetes: what is the relevance of the glucose challenge test?

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**TO THE EDITOR:** The recent letter by McElduff and Hitchman<sup>1</sup> has some very practical implications. They were able to show that pregnant women having a glucose challenge test (GCT) in the afternoon were nearly twice as likely to have a positive result as women tested in the morning, so that more women tested in the afternoon were diagnosed with gestational diabetes mellitus (GDM). If the function of the GCT is to aid in the diagnosis of GDM, then either all women should be tested in the afternoon or the glucose "cut-point" for the morning test should be reduced.

But does the GCT now have any relevance? In the United States, where testing for GDM often still involves a three-hour glucose tolerance test (GTT) using a 100 g glucose load and four blood samples, the GCT was introduced to reduce the number of women who had to have this long and, because of the higher dose of glucose, relatively unpleasant procedure. In Australia, where a two-hour, 75 g GTT is used (requiring two blood samples), it is not as important to offer a simpler initial test.

With the use of an initial GCT, about a quarter of women will need to have a GTT for confirmation, and the definitive diagnosis of GDM will be delayed. Further, the GCT is not specific and some women who may have GDM will not have a GTT. In addition, there will inevitably be some women who are GCT-positive, some of whom will have GDM, who do not return for the definitive GTT.

Thus, while a GCT may be convenient for a busy hospital clinic with space

limitations, it may not necessarily be in the best interests of the patient. Whether a GCT is ultimately helpful or possibly a hindrance requires further evaluation.

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### Mortality from prostate cancer is decreasing

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**TO THE EDITOR:** We conducted a joinpoint analysis of death certificate data on prostate cancer from the Australian Bureau of Statistics. Between 1979 and 1994, mortality rates increased by 2.1% per year (95% CI, 1.6% to 2.5%). However, between 1994 and 1999, mortality decreased by 4.2% per year (95% CI, -5.8% to -2.4%). The total decrease in mortality rates for the five years to 1999 (the most recent year for which data were available) was 22.6% (95% CI, -32.9% to -12.7%).

Joinpoint analysis is a statistical method that measures changing trends over time. It chooses the best-fitting points (called joinpoints) at which the rate of increase or decrease changes significantly.<sup>1</sup> We did not look at the data and then choose 1994 as the start of the decreasing trend in prostate cancer mortality. The significant decrease since 1994 (and the consistent increase between 1979 and 1994) were identified by the joinpoint analysis.

Whether early diagnosis and treatment of prostate cancer subsequent to screening with prostate-specific antigen (PSA) tests can save lives is still an open question that is best answered by randomised-controlled, long term trials. Nevertheless, it is important that we try to understand the recent decrease in population-based mortality. The mortality decline started in 1995, about five years after PSA testing became widely available in Australia. The use of PSA testing increased dramatically, reaching a peak in most States in 1994 and 1995.<sup>2</sup> In 1996, the Australian Health Technology Advisory Committee reviewed the evidence and recommended against screening.<sup>3</sup> Since then, the number of PSA tests has decreased.<sup>2</sup>

Recent mortality declines have also been observed in the United States and the United Kingdom following increases in the use of PSA testing. The mortality decline in the US has been greater than that in the