assess the occurrence of post-traumatic stress disorder or painful recollections. Therefore the protocol of no sedation seems to be associated with a need for more frequent individual assessment of the patient's pain, fear, anxiety, agitation or confusion, and adaption to the ventilator. Moreover, early and frequent mobilisation of patients could have contributed to improved outcome,[5] but such a strategy might have increased the workload for personnel.

This single centre study has some limitations. Furthermore, the slight imbalance in patients' severity could have favoured the group receiving no sedation, so the strategy needs to be repeated in different populations by different groups. The overall results, however, are impressive and promising. Use of this strategy will mean that more attention needs to be paid in the daily care of patients, and caregivers will need increased empathy towards patients. Hopefully, these findings will prove beneficial to patients.

Laurent Brochard
Medical Intensive Care Unit, Centre Hospitalier Albert Chenevier–Henri Mondor, Assistance Publique-Hôpitaux de Paris, 94000,Créteil, France; Institut National de la Santé et de la Recherche Médicale, Unit 955, Créteil, France; and Université Paris-Est, Créteil, France
laurent.brochard@hmn.aphp.fr

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Survival in people with type 2 diabetes as a function of HbA_{1c}

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Since publication of the troubling results from the ACCORD trial[1] in mid-2008, which showed that intensive treatment of type 2 diabetes was associated with a higher all-cause mortality than was conventional therapy, an explanation has been sought. The goal for people intensively treated was a glycated haemoglobin (HbA_{1c}) of less than 6·0%. At the end of 3·5 years, when the trial was prematurely terminated, the HbA_{1c} achieved was 6·4% in the intensively treated and 7·5% in the conventionally treated groups; HbA_{1c} was 8·1% at inclusion. The most plausible explanation for these results is hypoglycaemia: the treatment target was probably too low, or glucose lowering was too rapid, or the combinations of treatments led to hypoglycaemia.

By contrast, researchers from the ADVANCE[2] and VADT[3] studies reported no increase in mortality in intensively treated patients. Meta-analyses of the three trials, and of the UKPDS and the PROactive trials,[4–6] had sufficient power to conclude that although intensive treatment was associated with a lowered rate of major cardiovascular events and myocardial infarctions, it had no effect on mortality. Results were homogeneous between trials, but ACCORD[1] was the only one that showed a significant increase in mortality. Findings from the UKPDS,[7] which included younger (median age 54 years), newly diagnosed patients, showed a substantially lowered all-cause mortality and rate of myocardial infarction in the 10-year post-trial follow-up for those originally allocated to intensive therapy. This outcome suggests a legacy of early intensive treatment. In all studies,[5] hypoglycaemia was more frequent in the intensively treated than in the conventionally treated group.

In *The Lancet* today, some light is thrown on this issue by Craig Currie and colleagues[8] with data from the large and statistically powerful General Practice Research Database, which has gathered data electronically from general practitioners in the UK. In this study of 48 000 patients with type 2 diabetes (cohort 1 changed from monotherapy to combination oral therapy with metformin and a sulphonylurea; cohort 2 changed to insulin treatment), the main result is that the 10% of patients with lowest HbA_{1c} values (<6·7%) had a higher death rate than all but those in the top 10%, who had an HbA_{1c} of 9·9% or higher. Furthermore, cardiovascular disease was more frequent in this low HbA_{1c} group than in any other decile. Similar results were reported in the two cohorts analysed with different definitions

of how HbA_{1c} was used in statistical analyses and after adjustment for the main covariates associated with mortality. The hypothesis that premature death might be related to hypoglycaemia is also supported by the finding that for those with an HbA_{1c} of less than 6·7%, the insulin treated group had a higher hazard ratio (HR) for mortality (1·79, 95% CI 1·45–2·22) than did those not treated with insulin (HR 1·30, 1·07–1·58), compared with the reference decile 4 in which HbA_{1c} was 7·4–7·7%. Furthermore, in the insulin treated group, all three lower-decile groups had higher mortality than did the reference decile group, by contrast with the orally treated group, in which only the first-decile group had higher mortality. A previous study[9] showed that in patients with type 2 diabetes, insulin therapy was more closely related to hypoglycaemia (odds ratio [OR] 3·44, 2·07–5·73) than sulphonylurea therapy (OR 1·54, 0·95–2·50), and low HbA_{1c} levels were also associated with any hypoglycaemia, with an OR per 1% decrease in HbA_{1c} of 1·15 (1·04–1·29).

Causes of death were not given in today's report—was sudden death a more common cause in those with low HbA_{1c}? No information is provided about the actual insulin or oral doses, or drugs used for treatment. A study[10] that used the same database showed that first-generation sulphonylurea monotherapy was associated with higher mortality (HR 1·37, 1·11–1·71) than was second-generation sulphonylurea monotherapy (HR 1·24, 1·14–1·35) compared with metformin. Another study from the Saskatchewan Health administrative databases[11] implicated insulin exposure with increased mortality, with a dose-response relation in patients with type 2 diabetes.

Although today's study does lend support to results of earlier studies, an epidemiological study cannot show a causal relation, and such an observational database does not provide the detailed information that is available in a randomised clinical trial, such as the frequency of hypoglycaemia. However, this study has the advantage of dealing with observations in the real world: the choice of the treating physician in prescribing specific drugs might well depend on the severity of the patient's illness and probable lifespan. Ideally, only randomised clinical trials of intensive treatment with continuous glycaemic monitoring to detect all hypoglycaemia in all groups of patients (especially in those who will die) would resolve this issue. Because this option is not feasible, careful monitoring of all hypoglycaemic

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events with stringent definitions, which are still under discussion,[12] should be included in the trial design to assess the effect of hypoglycaemia on death and cardiovascular events. Key elements in the use of drugs that can provoke hypoglycaemia are the education of patients to recognise hypoglycaemia and systematic reporting of all hypoglycaemia.[13]

In patients with type 2 diabetes, when using insulin secretagogues or insulin itself, today's study does provide a rationale for an HbA_{1c} threshold of 7·5%, corresponding to the lowest death rate and lowest event rate for large-vessel disease. Priority should be given to insulin sensitisers for as long as possible in patients with type 2 diabetes, because these drugs allow a low HbA_{1c} to be targeted without any risk of hypoglycaemia. More research is needed to establish HbA_{1c} thresholds and the combination of drugs to be recommended for intensive treatment, with perhaps differing recommendations according to the patient—intensive treatment seems to be more beneficial for cardiovascular outcomes for those who are younger than 60 years, with a short duration of diabetes, and absence of microvascular and macrovascular disease.[5]

Beverley Balkau, Dominique Simon
Epidemiology of Diabetes, Obesity and Chronic Kidney Disease over the Lifecourse, CESP Centre for Research in Epidemiology and Population Health, U1018, Inserm, F-94807, Villejuif, France (BB, DS); Université Paris Sud 11, UMRS 1018, Villejuif, France (BB); and Groupe Hospitalier Pitié Salpetrière, Paris, France (DS)
beverley.balkau@inserm.fr

BB has served as a speaker for Sanofi-Aventis and on advisory panels for AstraZeneca, Bristol Myers Squibb, Lilly, and Sanofi-Aventis. DS has served as a speaker for Glaxo-Smith Kline, Sanofi-Aventis, Servier, and on advisory panels for AstraZeneca, Bristol Myers Squibb, Glaxo-Smith Kline, and Novartis.

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Safer childbirth: avoiding medical interventions for non-medical reasons

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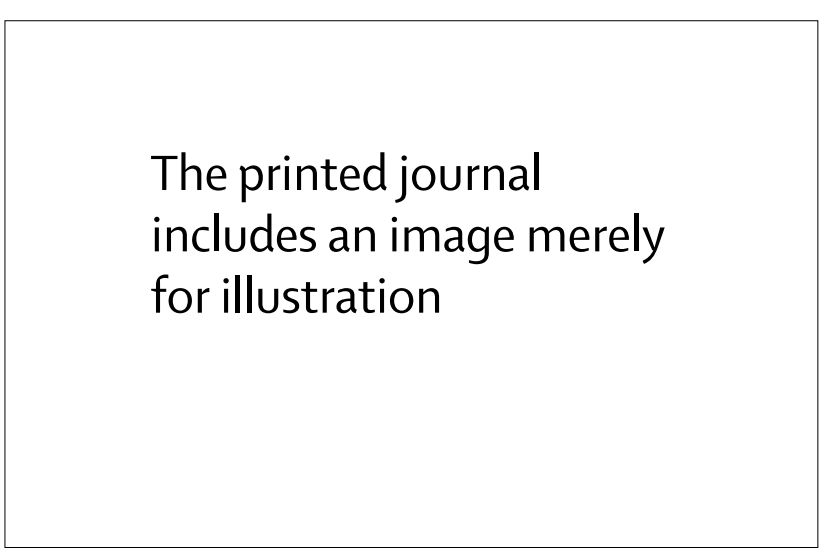
3 years ago, *The Lancet* published the 2005 WHO global survey on maternal and perinatal health,[1] which documented the high rates of caesarean sections in Latin America and the association with severe maternal and perinatal morbidity and mortality. That year, a new warning was issued about the dangers of unnecessary caesarean section.[2] However, controversy about the ideal rate of caesarean section[3] and the place of maternal choice[4] has been continuing for so long that many obstetricians have become accustomed to the practice of medical interventions for non-medical reasons. I (Y-SC) was once dumbfounded to overhear a remark at a professional workshop that "the best birth plan any woman can have is to ask for an elective caesarean section". No doubt that remark was made facetiously, but the inconvenient truth is that physicians are some of the main advocates of this intervention to their patients, themselves, and their relatives.[5]



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In *The Lancet* today, this situation is highlighted by Pisake Lumbiganon and colleagues in the 2007–08 WHO global survey,[6] which provides a careful examination of childbirth practices in nine Asian countries. Acknowledging the difficulties of separating the intrinsic risk of procedures from the underlying medical indications, these authors classified caesarean sections into those with and without indications, and vaginal deliveries into spontaneous and operative deliveries. And the results are surprising and chilling.

Although the overall rate of caesarean section was lower than that in Latin America (27% *vs* 33%), regional practice in the nine Asian countries differed substantially: rates in four countries exceeded 30%, whereas rates in the remaining five were less than 21%. In the country with the highest rate (China, 46·2%), a quarter of caesarean sections were done without medical indications—a rate far higher than that in the other countries surveyed. The reasons for this astonishing difference in practice were