A regular meal and insulin infusion regimen: its use in the treatment of acute-onset ketotic diabetes and in stabilization of poorly controlled established diabetic subjects.

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A simple regimen, consisting of a constant intravenous insulin infusion at either a basal, nocturnal rate or at a daytime rate matched by seven small, isocaloric meals taken every 2 h, has been applied to two clinical situations requiring optimal blood glucose control. In eight poorly controlled established diabetic subjects, quantitative estimates of daily insulin requirements were possible, with consequent improved control upon reinstitution of twice-daily subcutaneous insulin. In five acute-onset, ketotic diabetic subjects first treated by intravenous saline and low-dose intramuscular insulin, the regimen was used to achieve and maintain basal and postprandial normoglycemia. Ketonuria was abolished quickly in these patients, and falling insulin requirements and large doses of insulin were handled easily. In both clinical situations, subsequent subcutaneous insulin doses required little adjustment. The regimen is cheap, convenient to use, and widely applicable.