Inpatient diabetes care in a swiss multi-site hospital: is there room for improvement?

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Background and Objective:

Optimal care of diabetic patients (DPs) decreases the risk of complications. Close blood glucose monitoring can improve patient outcomes and shorten hospital stay. The objective of this pilot study was to evaluate the treatment of hospitalized DPs according to the current standards, including their diabetic treatment and drugs to prevent diabetes related complications (=guardian drugs: angiotensin converting enzyme inhibitors (ACEI) or Angiotensin II Receptor Blockers (ARB), antiplatelet drugs, statins). Guidelines of the American Diabetes Association (ADA) [1] were used as reference as they were the most recent and exhaustive for hospital care.

Design:

Observational pilot study: analysis of the medical records of all DPs seen by the clinical pharmacists during medical rounds in different hospital units. An assessment was made by assigning points for fulfilling the different criteria according to ADA and then by dividing the total by the maximum achievable points (scale 0 to 1; 1=all criteria fulfilled).

Setting:

Different internal medicine and geriatric units of the (multi-site) Hôpital du Valais

Main outcome measures:

- DI = Completeness of diabetes-related information: type of diabetes, insulin-dependance, medical and medication history, BMI, renal function,(recent) lipid profile, albuminuria

- MG = Management of blood glucose: glycated hemoglobin (HbA1c), plan for treating hyper-/ hypoglycaemia, glycemic control

- GD = Presence of guardian drugs if indicated

Results:

Medical records of 42 patients in 10 different units were analyzed (18 women, 24 men, mean age 75.4 ± 11 years): 41 had type 2 diabetes.

DI: Mean score = 0.8 ± 0.1 points
Information often missing: insulin-dependence (43%) and lipid profile (86%) (see figure 2)

MG: Mean score 0.5 ± 0.2 points (see figures 1 & 2)
- 12 patients had an adequate blood glucose control
- 15 patients had a suboptimal glucose control
- 10 patients had an inadequate glucose control
- 4 patients: Not know, values not recorded electronically

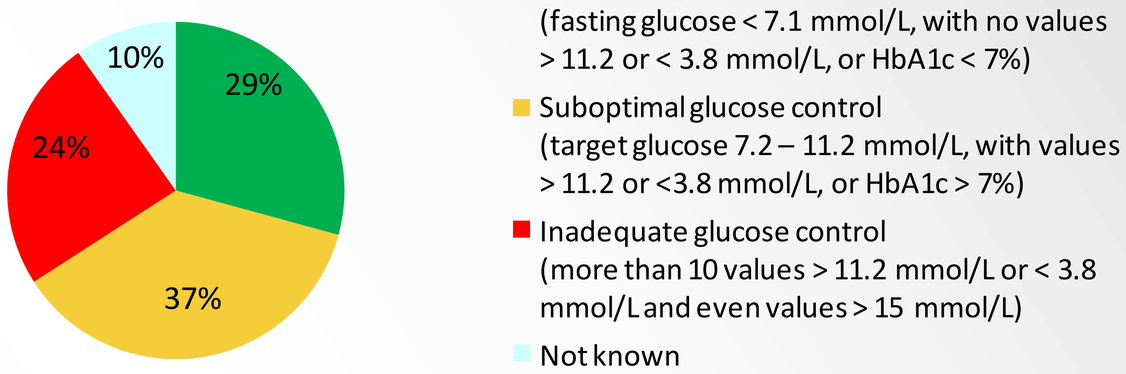

Figure 1: Glucose control

GD: Mean score 0.7 ± 0.3 points (see figure 2)

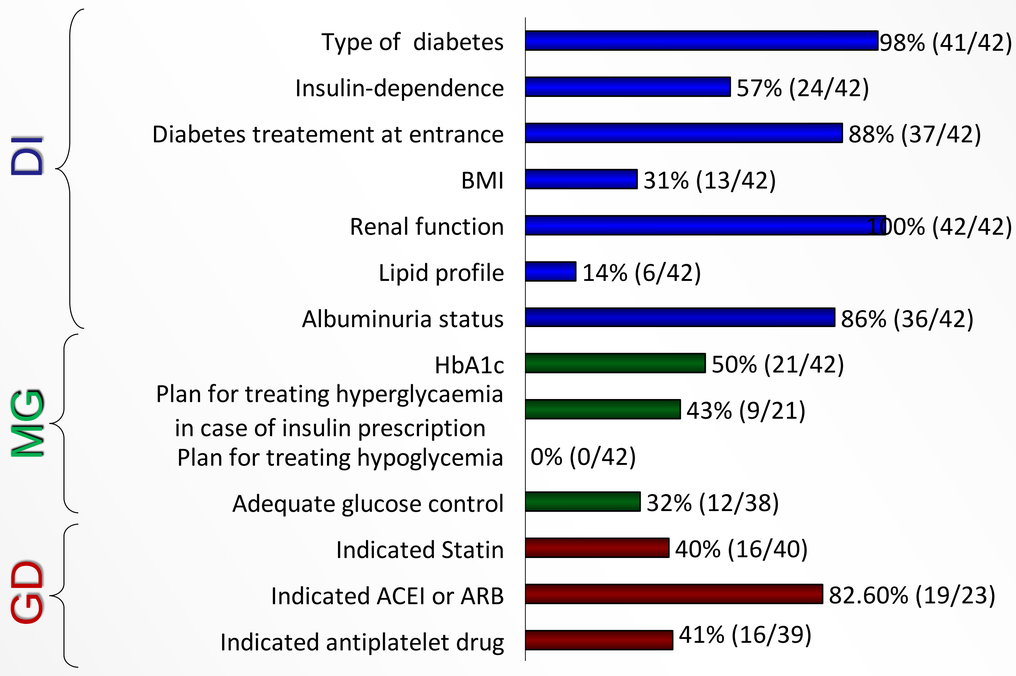

Figure 2: Percentage of patients who fulfilled the criteria.

Conclusions:

Blood glucose control was insufficient in many DPs (25/42). Prescription of statins and antiplatelet drugs, when indicated, was often missing. If confirmed by a larger study, these two points need to be optimized. As it is not always possible and appropriate to make those changes during hospital stay, a further project should assess and optimize diabetes care across both inpatient and outpatient settings.

References: 1. Standards of medical care in diabetes-2008.Diabetes Care.2008; 31 suppl.

Available at www.hopitalvs.ch/fr/ichv/documentation/Pages/default.aspx