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Diabetes management and deprescribing in specialized palliative care

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Symptom control to optimize quality of life is essential in patients receiving specialized palliative care (PC). Diabetes is a common comorbidity in PC patients. However, there are only very few thematically meaningful guidelines on diabetes management at end of life. Recommendations on management of antidiabetic drugs, especially addressing deprescribing, and blood glucose level (BGL) monitoring remain underreported. Existing recommendations are generally based on clinical experiences. To provide guidance, insights in current practices are needed.

We aimed to provide an overview of diabetes management in specialized PC, with an emphasis on BGL monitoring and drug therapy.

Methods

Scoping review on diabetes management in PC patients with diabetes and a life expectancy ≤ 1 year → Online survey (41 items, branch logic) on diabetes management recommendations from various health care professionals

Results

50 publications [1993-2022] were included (reviews or observational studies, no intervention studies)

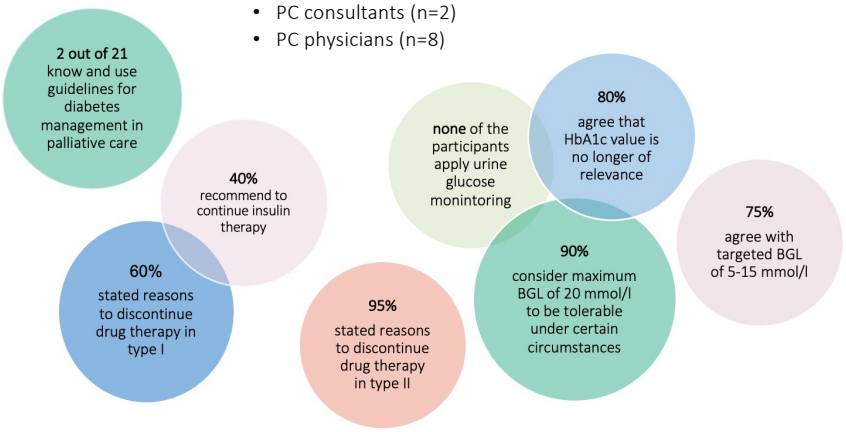
- therapy management in type I diabetes (n=17, 34%)
- therapy management in type II diabetes (n=28, 56%)

Addressed monitoring aspects	n	[%]
BGL max	**28**	**100**
recommended value of 15 mmol/l	14	50
BGL min	**27**	**100**
≥5 mmol/l to <7 mmol/l	15	56
Interventions at	**9**	**100**
20 mmol/l	6	67
Urine glucose monitoring	**3**	**100**
HbA1c monitoring	**12**	**100**
recommended (7.5-8.0%)	4	33
rated clinically irrelevant or not recommended	8	67

Addressed therapy aspects	n	[%]
Type of insulin recommended	**31**	**100**
short-acting insulin	8	26
intermediate-acting insulin	6	19
long-acting insulin	17	55
Adaptions in type I diabetes	**16**	**100**
dose reduction insulin	10	62.5
discontinuation insulin last weeks/days of life	6	37.5
Adaptions in type II diabetes	**38**	**100**
discontinuation oral therapy	20	53
dose reduction oral therapy	5	13
considering discontinuation insulin	13	34

21/48 (43.8%) health care professionals participated:

- Clinical pharmacists (n=3)
- Endocrinologists (n=3)
- Hospice physicians (n=5)
- PC consultants (n=2)
- PC physicians (n=8)



Criteria that should be considered for deprescribing of antidiabetic therapies are **life expectancy, patient's symptoms and performance of risk-benefit analyses**.

→ Patients' comfort should always be a priority.

	KEY POINTS FROM THE LITERATURE	KEY POINTS FROM HEALTH CARE PROFESSIONALS
Targeted BGL	5-15 mmol/l (up to 20mmol/l)	5-20 mmol/l
Targeted HbA1c value	(7.5-8%)	not recommended
Urine glucose monitoring	to be considered	not applied
Type I diabetes	• min. 1 BGL measurement/day • long-acting insulin preferred • dose reduction or discontinuation of therapy under given circumstances	• no explicit statement on BGL monitoring • long-acting insulin preferred • discontinuation of therapy *could* be considered under given circumstances (i.e., dying phase)
Type II diabetes	• BGL monitoring only in patients with insulin • sulfonylureas controversially discussed • caution with administration of metformin	• BGL monitoring only in symptomatic patients • discontinuation of therapy *should* be considered • no consensus on preferred drugs for antidiabetic therapy reached

Conclusion

No consensus was reached between the literature and the survey on the optimal timing for discontinuation of antidiabetic therapy, dose reduction, and BGL monitoring. Although trends towards desirable targeted BGL ranges were identified, it was not possible to provide explicit recommendations for specialized PC. Diabetes management remains highly patient individual. The project will be followed up by re-surveying health care professionals using case-specific vignettes.

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