Diabetes Care
Diagnosis and onwards to end of life

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Aims of this session:

- To outline the current national perspective on the palliative care of people with diabetes
- To examine 'special aspects' of situations that can impact on the quality of patient care
- To look at latest recommendations on the modulation of glycaemic control during this phase of life

Latest National Guidance

- End of Life Diabetes Care:
  Full Strategy Document
  Commissioned by Diabetes UK
  Second Edition October 2013

- Defining Main Principles of Diabetes Care at the End of Life ..[in brief]

- Provision of a painless and symptom-free death
- Tailor glucose-lowering therapy and minimise diabetes-related adverse treatment effects
- Avoid metabolic decompensation and diabetes-related emergencies:
  - frequent and unnecessary hypoglycaemia
  - diabetic ketoacidosis
  - hyperosmolar hyperglycaemic state
  - persistent symptomatic hyperglycaemia
  Avoidance of foot complications in frail, bed-bound patients with diabetes
- Avoidance of symptomatic clinical dehydration
- Provision of an appropriate level of intervention according to stage of illness
- Supporting and maintaining the empowerment of the individual patient

What happens in progressive disease that may affect diabetes and vice versa?

- Catabolic state increasing risk of pressure ulceration, sepsis due to impaired immune response
- Reduced appetite thus limiting food/fluid intake - Renal +/- liver failure
- Relevance of the disease itself +/- chemotherapy [e.g. tyrosine kinase inhibitors] on glycaemia
- Difficulty in predicting rate of decline
- Balance between avoidance of DKA/HHS/Hypoglycaemia and reasonable glycaemic control

Key action points

- Stopping and/or reducing
  - Statin Therapy
  - BP Therapy [including ACE inhibitors – risk of hyperkalaemia]
- Individualised needs assessment for..
  - antiplatelet/anticoag/DVT prophylaxis Tx
  - antidepressant Tx

Extent of the existing problem[1]

- 'Up to 25% of hospital inpatients have diabetes*'
- 'Increasingly ageing population with ++ co-morbidities'
- 'Improving recognition of palliative phases of care'
- 'Need to palliate patients with advanced cardiovascular/renal disease, alongside other progressive neurodenegerative and neoplastic conditions'

- *Reference *MJA 2014; 201: 334-338 doi: 10.5694/mja13.00104

Extent of the existing problem [2]

- 75,000 people with diabetes die annually in UK
- The Liverpool care pathway withdrawn in 2013 as it was perceived to “hasten death” as foods and fluids withheld etc .
- Francis report 2013 added to this and recommended the Care of the Dying” should not be a “pathway” but a “Care Plan”
- All pts able to eat and drink should be allowed to do and age is no barrier – failure to comply is “professional misconduct”

Initial Cancer diagnosis

Key imperatives:

- Important to control hyperglycaemia
- If patient losing weight may need to stop Metformin, (?temporarily) and SU used instead or insulin
- May need calorie dense foods to maintain nutrition and weight – diabetes medication to cover
- Patients must be able to monitor blood glucose but 1 -2 daily probably sufficient

Later on - The role of steroids

- Steroids are often part of the medical treatment plan in chemo / palliative care
- Inform pt of effects - Steroids increase BG between lunch and bed – need glucose lowering medication to target this time period
- SU can be very effective but insulin often best – Isophane morning (as it peaks at lunch) and Humulin S lunch and eve meal
- Steroids if beneficial to pt must not be decreased because of hyperglycaemia – insulin must be increased instead

End of Life Diabetes Management – Care Plan Managing glucose on **once daily steroids**

Glucose control and current therapy – dependent on renal and liver status

Metformin or Gliptin treated

- Test tds and add SU e.g Gliclazide or Repaglinide v helpful
- Or ? Insulin if no response to SU
- Caution - nocturnal hypo

Sulphonylurea treated (Gliclazide etc)

Continue Metformin if possible

- Titrate Gliclazide – may have to give 2nd dose at lunch to target pre eve hyperglycaemia
- Watch for nocturnal hypo or early morning hypo
- If no response and pre lunch or pre eve meal > 10 mmol/L
- Start basal insulin am initially and usually need rapid acting later

Insulin controlled

Bi phasic -Twice daily insulin

- May be preferable to change to morning basal and Rapid pre lunch and pre eve meal
- Monitor BGM Tds until stable
- Reduce insulin as steroids decrease stop

Basal bolus regime:

- Ideal regime for steroids as easy to titrate morning basal and use Novorapid morning and lunch and small dose pre eve meal

Ember to reduce medication in tandem with reducing steroids to prevent against hypoglycaemia

Advanced disease- months plus prognosis

- Keep to simple drug interventions – insulin alone simpler than combination of OHA's plus insulin
- Maintain BG > 6mmol/L and < than 15mmol/L to reduce risk of hypo / symptomatic hyperglycaemia
- patients /relatives may perceive relaxing BG control as giving up - so be sensitive
- Monitoring reduced to once twice daily depending on stability
- Aim to avoid hospitalization from dehydration or decompensation – individualized care important

End of Life Diabetes Management – Care Plan Guidance Months +

Appetite very reduced – sensitive discussion with patient/family

Type 2
Metformin or Gliptin only

Stop Metformin

Daily or alternate day BGM
As patient maybe taking Ensure or calorie dense foods

Type 2on Gliclazide (or Gliptin. SGLT2 etc or insulin

Stop tablets and and SGLT2
Reduce /stop insulin as appropriate

If insulin stopped :
Monitor BG daily
Give Actrapid 4 units if BG 15 - 19 mmol/L
Actrapid 6 units if 20 or above

f patient requires 2 injections daily of rapid acting insulin re instate basal Isophane/ Insulatard on low dose

Type 1 – must continue insulin
And daily monitoring

Continue basal and give rapid as required
Reduce doses as required

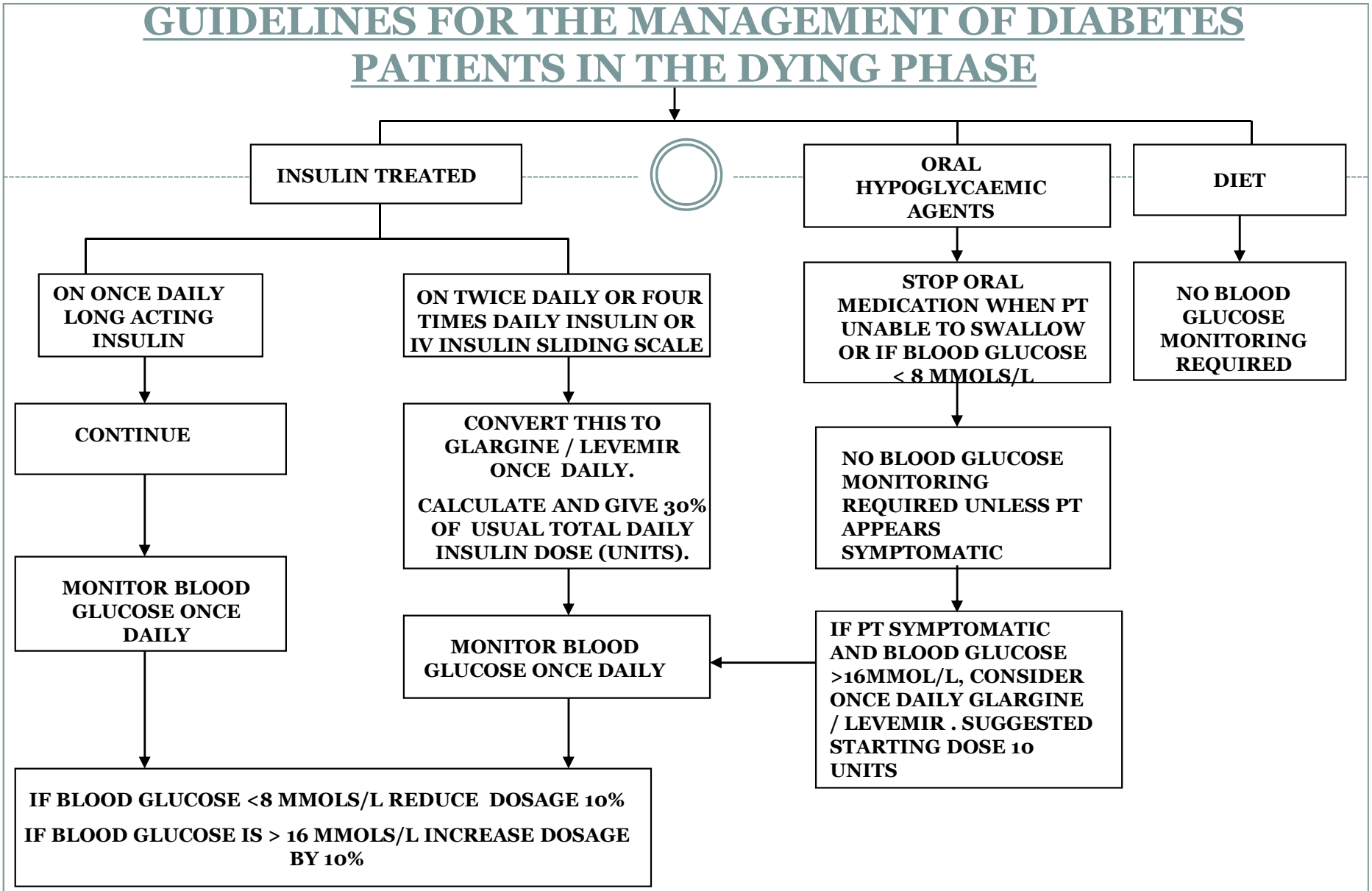
If BG below 8mmol/L reduce insulin by 10-20%
If BG 15 or above increase insulinby 10-20% to reduce symptms or ketosis

Important – hypoglycaemia more difficult to observe if pt on opiates etc
Also Glucagon may be ineffective in Liver disease or absent in Pancreatic cancer

End of life care in Hospital

- Up to 20% hospital in pts have diabetes and many have co-morbidities
- Patients and their relatives deserve and expect high quality care in all aspects of ‘palliative approaches’
- Crucial to avoid hypoglycaemia and symptomatic hyperglycaemia

GUIDELINES FOR THE MANAGEMENT OF DIABETES PATIENTS IN THE DYING PHASE



THE AIM OF DIABETES CARE IS TO ENSURE THE PATIENT IS SYMPTOM FREE.

WHERE POSSIBLE PATIENTS WISHES SHOULD BE RESPECTED WITH REGARDS TO ALL ASPECTS OF DIABETES MANAGEMENT

PLEASE CONTACT THE PALLIATIVE CARE TEAM OR DIABETES SP.NURSES FOR ADVICE

Clinical scenarios

- Diagnosed diabetes + serious illness e.g. malignancy
- End stage complications of diabetes – heart failure / renal failure