Perioperative Diabetes Management

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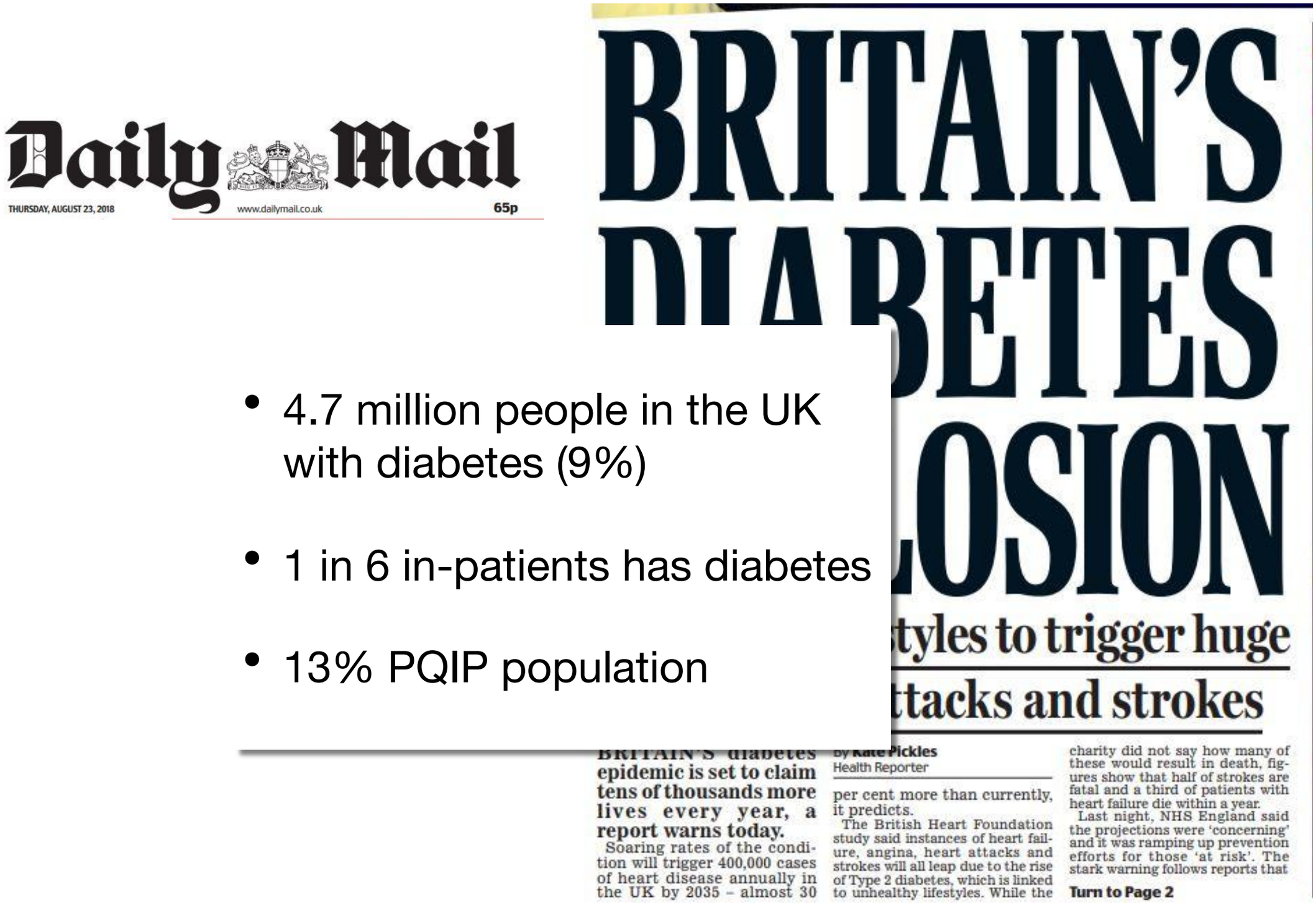
Daily Mail
THURSDAY, AUGUST 23, 2018
www.dailymail.co.uk
65p
BRITAIN'S DIABETES EXPLOSION
styles to trigger huge
ttacks and strokes
BRITAIN'S diabetes epidemic is set to claim tens of thousands more lives every year, a report warns today.
Soaring rates of the condition will trigger 400,000 cases of heart disease annually in the UK by 2035 – almost 30
By Kate Pickles
Health Reporter
per cent more than currently, it predicts.
The British Heart Foundation study said instances of heart failure, angina, heart attacks and strokes will all leap due to the rise of Type 2 diabetes, which is linked to unhealthy lifestyles. While the charity did not say how many of these would result in death, figures show that half of strokes are fatal and a third of patients with heart failure die within a year.
Last night, NHS England said the projections were 'concerning' and it was ramping up prevention efforts for those 'at risk'. The stark warning follows reports that
Turn to Page 2

- 4.7 million people in the UK with diabetes (9%)
- 1 in 6 in-patients has diabetes
- 13% PQIP population

PQIP report

PQIP report

8.5

Recommended upper limit of HbA1c (in %) for elective surgery

90

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% of patient with poor glycaemic control having elective surgery

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69

PQIP report

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Recommended upper limit of HbA1c (in %) for elective surgery

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% of patient with poor glycaemic control having elective surgery

20

69

% of patients with an HbA1c recorded

PQIP report

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Recommended upper limit of HbA1c (in %) for elective surgery

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% of patients with an HbA1c recorded

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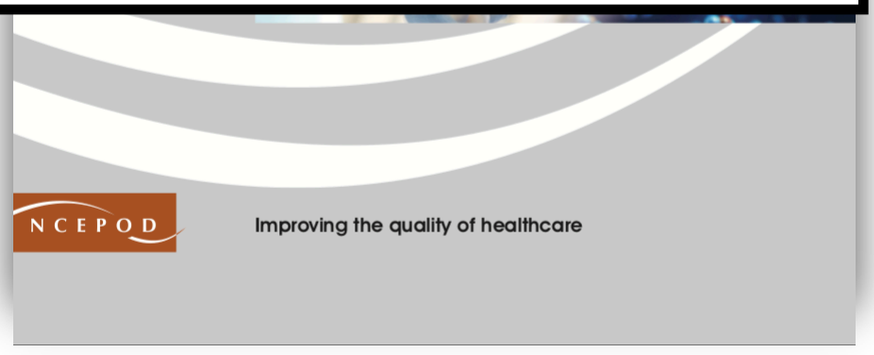
% of patients having elective surgery with poor glycaemic control

NCEPOD

- **Enormous and unwarranted variation in the standard of care provided to patients with diabetes who have had surgery.**

Professor Ravi Mahajan -RCOA President



Optimisation for surgery

- ✔ HbA1c
- ✔ Co-morbities
- ✔ Medications
- ✔ BMI
- ✔ eGFR
- ✔ Risk Rating

Prioritisation on the elective list

1st

To prevent prolonged fasting

Multidisciplinary team involvement

To ensure clinical continuity and input from all relevant healthcare team members

Referral, handover and discharge

To communicate the patient's status and needs to all in the pathway – especially THE PATIENT

JBDS-IP Joint British Diabetes Societies for inpatient care

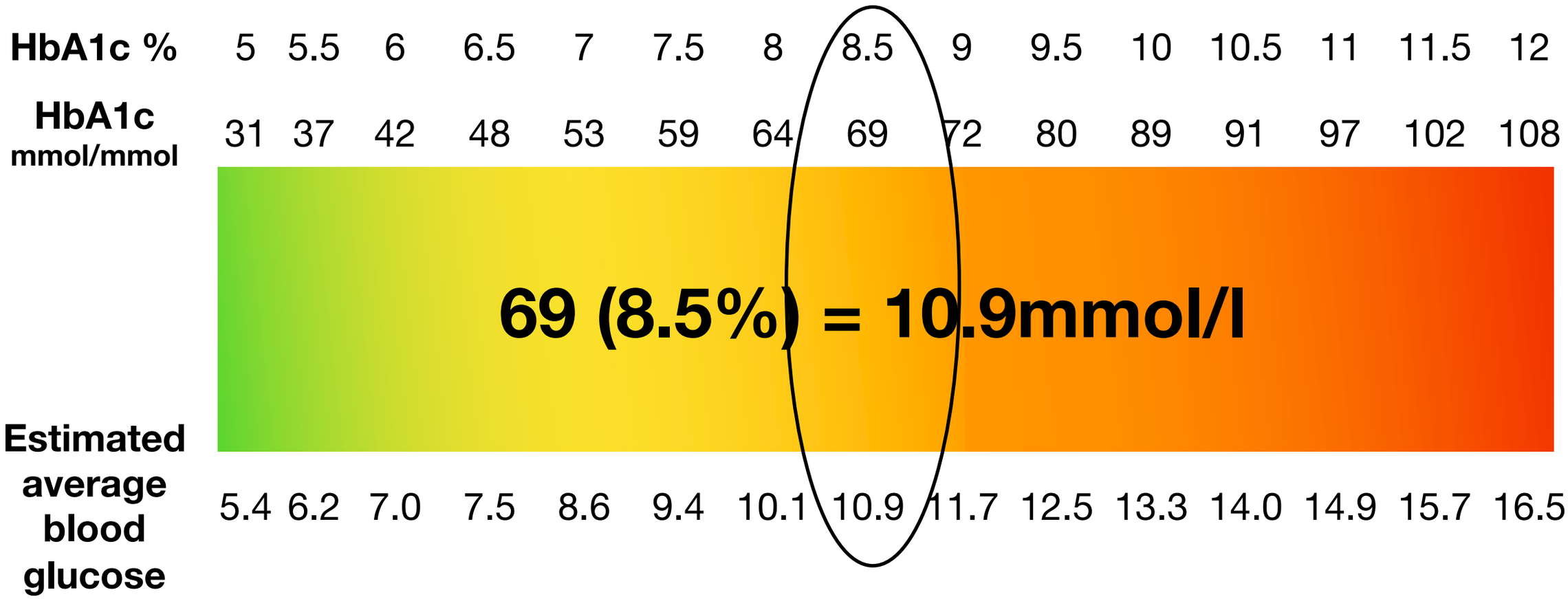
Management of adults with diabetes undergoing surgery and elective procedures: Improving standards

Revised March 2016

Pre-assessment

- Individualised Perioperative diabetes plan
  - Perioperative drug changes
  - Fasting guidelines
- Identify higher risk patients
  - Type 1
  - Poor control

HbA1c

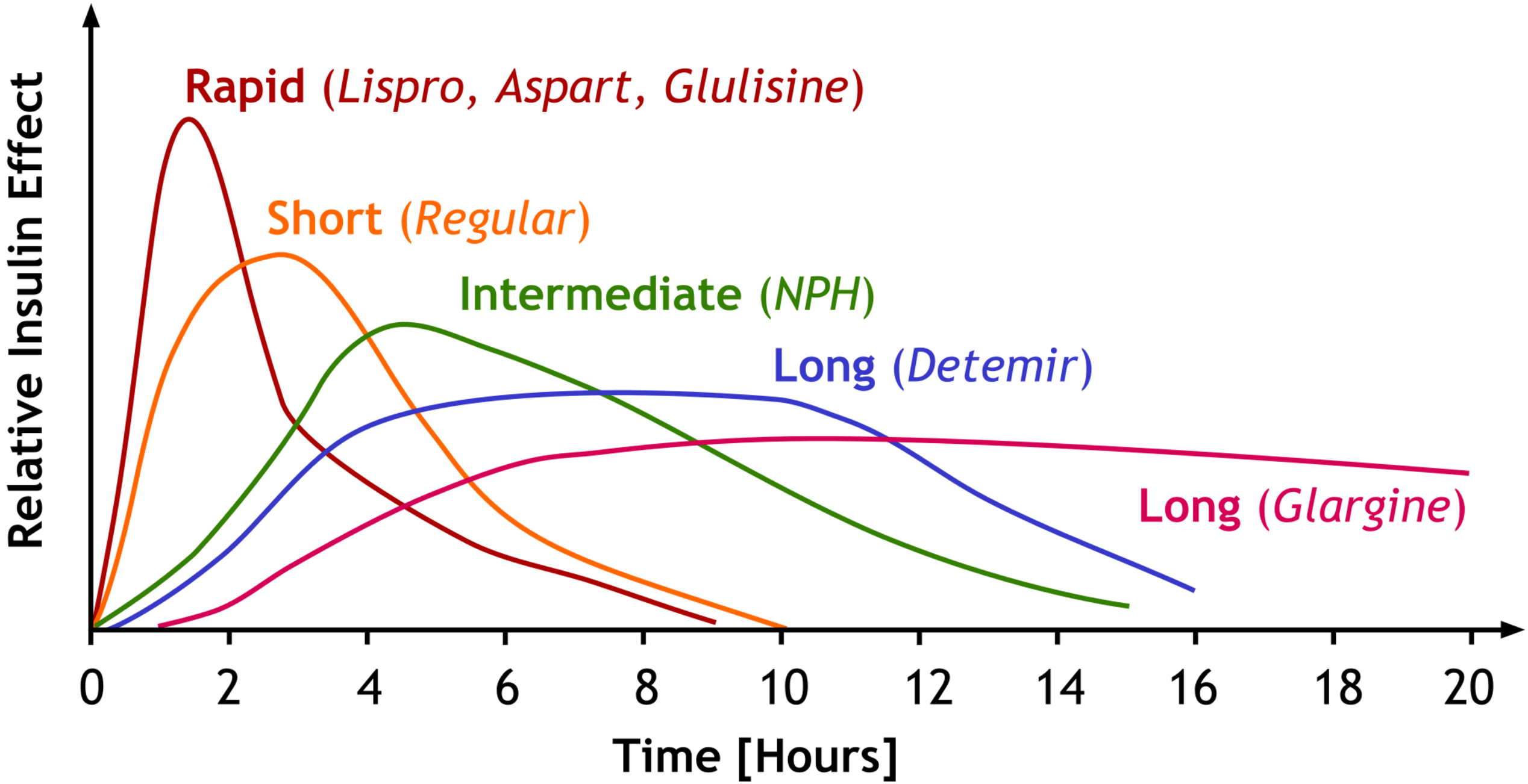

HbA1c %
5 5.5 6 6.5 7 7.5 8 8.5 9 9.5 10 10.5 11 11.5 12
HbA1c mmol/mmol
31 37 42 48 53 59 64 69 72 80 89 91 97 102 108
69 (8.5%) = 10.9mmol/l
Estimated average blood glucose
5.4 6.2 7.0 7.5 8.6 9.4 10.1 10.9 11.7 12.5 13.3 14.0 14.9 15.7 16.5

New(er) Drugs

- Sodium Glucose cotransporter 2 inhibitors (GLT2i)
  - Gliflozins
- Dipeptidyl Peptidase-4 inhibitors (DPP4i)
  - -gliptins
- Increatin mimics
  - e.g. extenatide

Analogue insulins

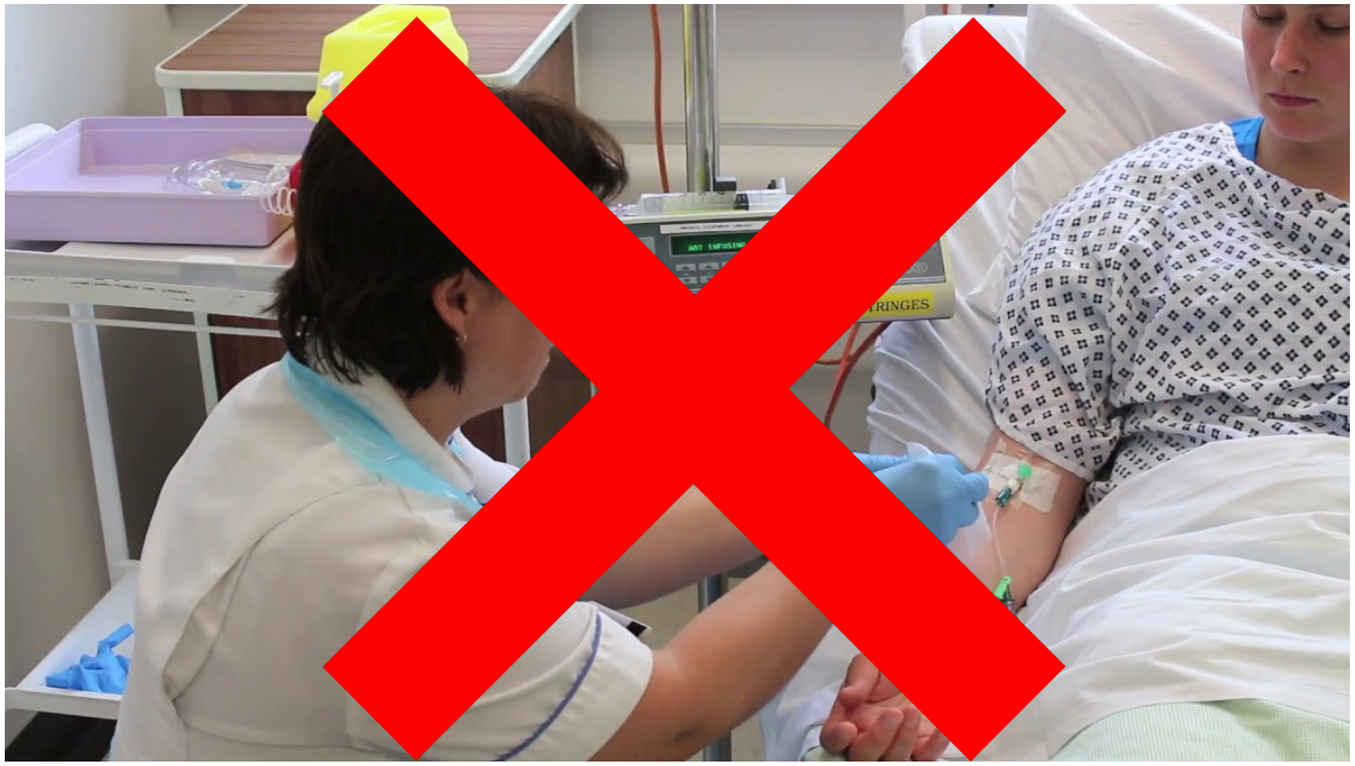
- **Ultra short acting**
  - Fiasp (insulin aspart)
- **Short acting**
  - Novorapid (insulin aspart)
  - Humalog (insulin lispro)
  - Apidra (insulin glulisine)
- **Long acting**
  - Levemir (insulin detemir)
  - Lantus (insulin glargine)
- **Ultra long acting**
  - Tresiba (insulin degludec)


Rapid (*Lispro, Aspart, Glulisine*)
Short (*Regular*)
Intermediate (*NPH*)
Long (*Detemir*)
Long (*Glargine*)
Relative Insulin Effect
0
2
4
6
8
10
12
14
16
18
20
Time [Hours]

Admission

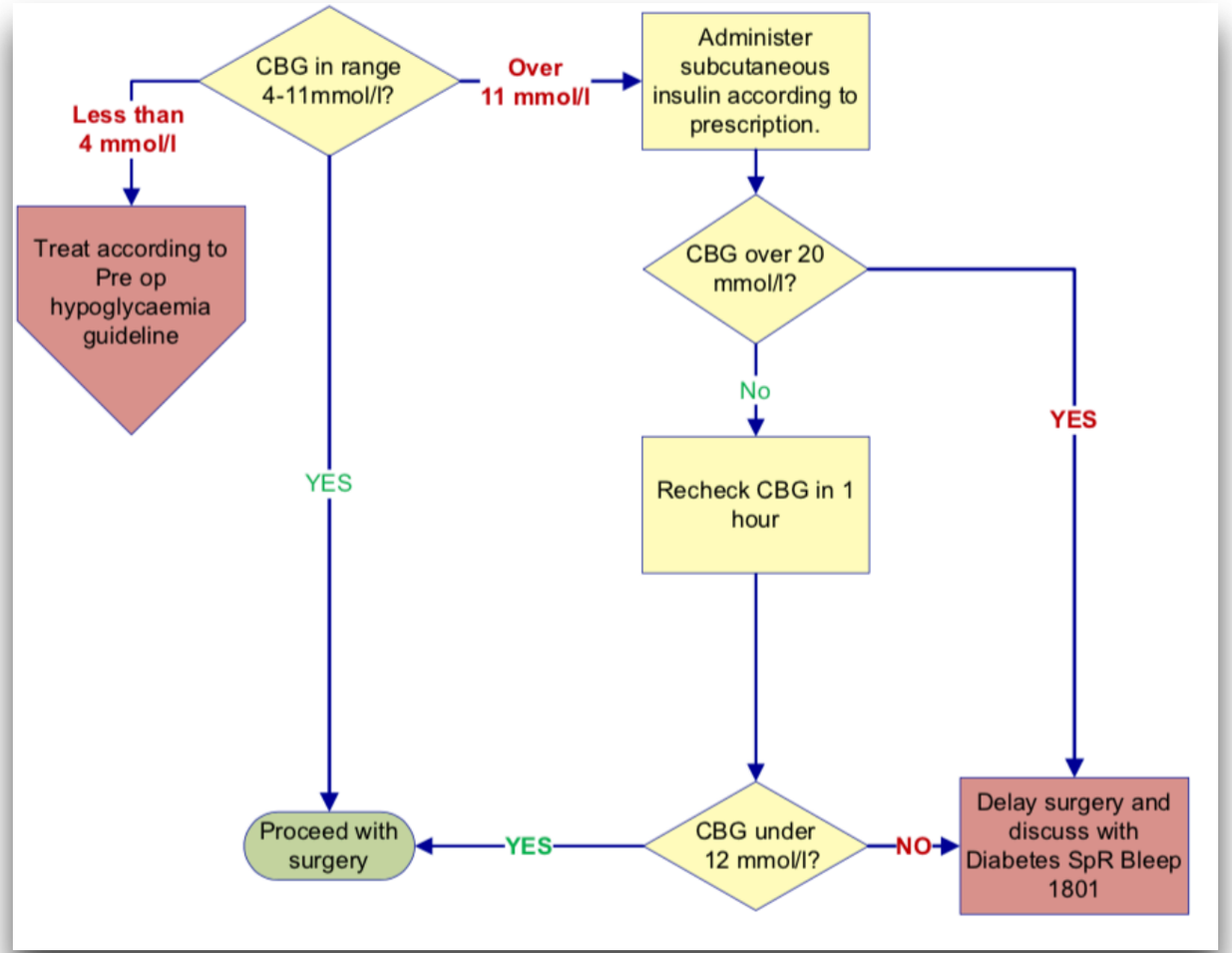
- Do not change solely due to diabetes

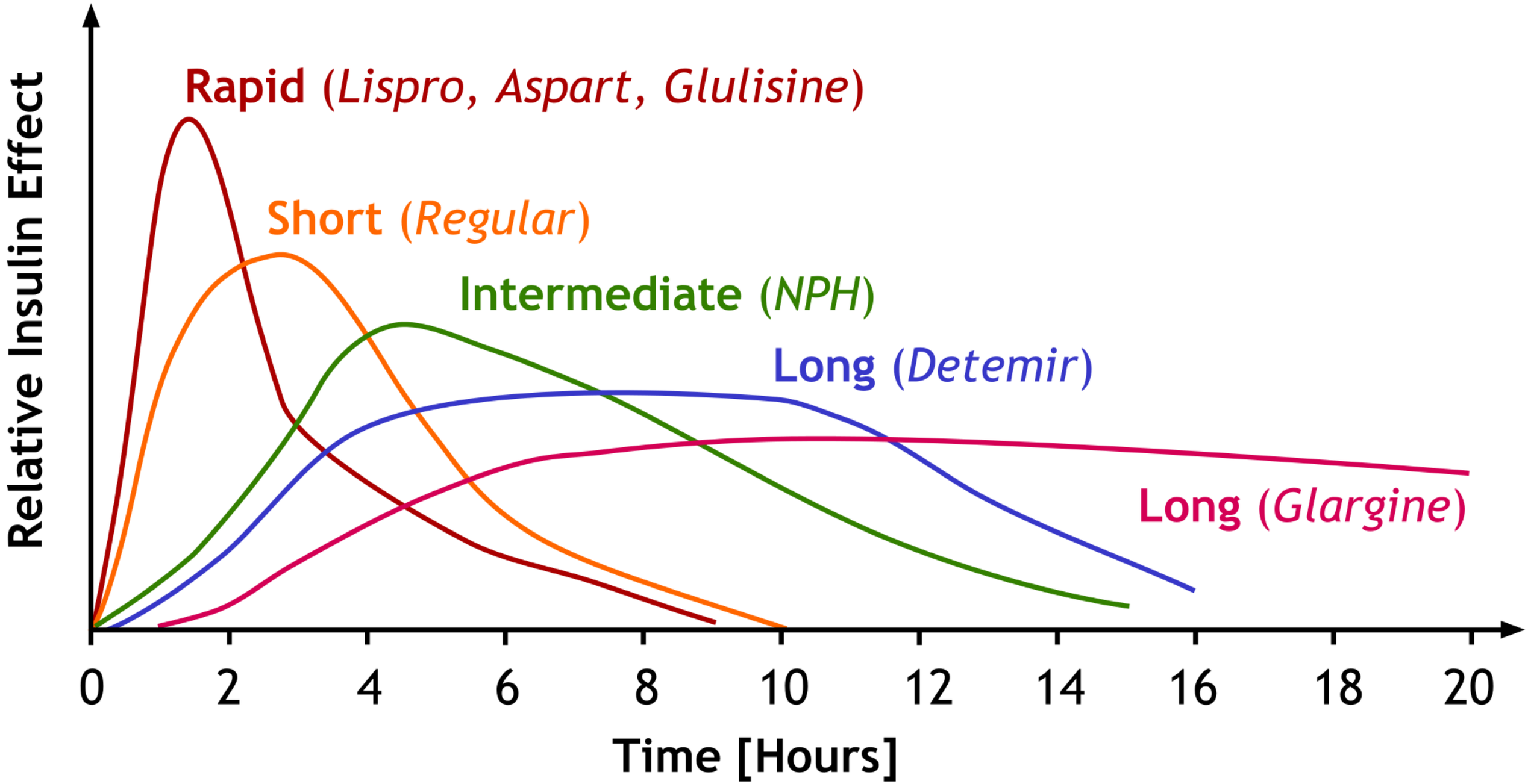
- Avoid Carbohydrate loading drinks in Type 1
  (and possibly insulin treated type 2)



Avoid Variable Rate Intravenous Insulin Infusion wherever possible

Management of Hyperglycaemia

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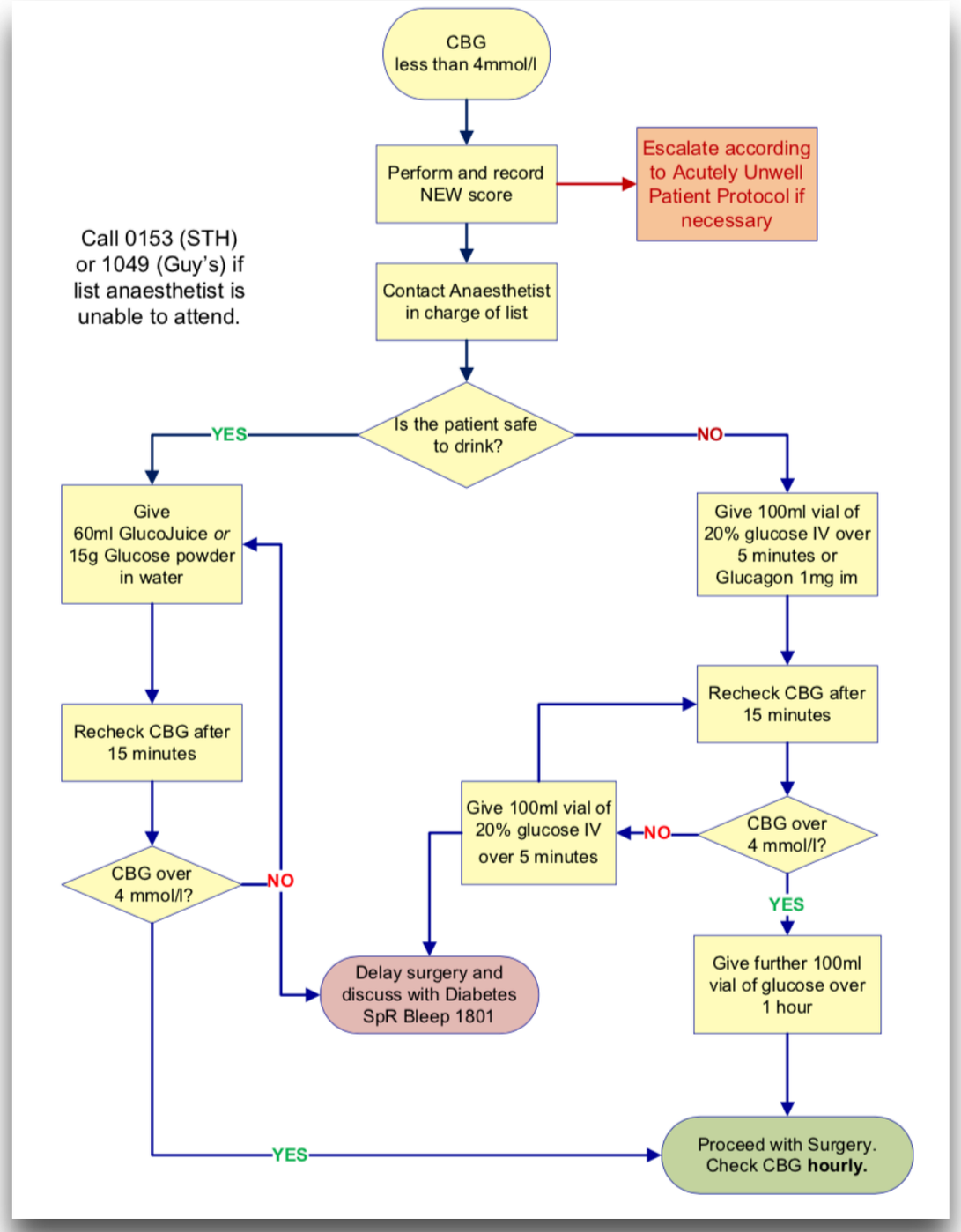


“The most conclusive way to find out if a patient is type 1 or type 2 is to not give them insulin

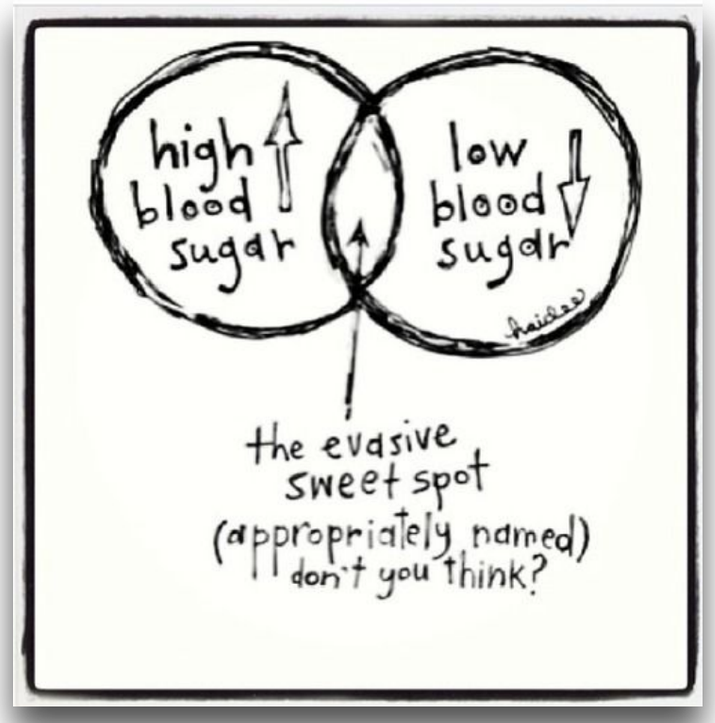
Type 1 diabetics MUST have insulin

If they die they were type 1”

New Technologies

Key takeaways

- Hospital-wide guidelines
- Create an individualised plan for your patient **and communicate it**
- Avoid VRIII wherever possible
- Make sure Type 1s receive insulin
- Monitor the patient's blood sugar



Further Reading

- Management of adults with diabetes undergoing surgery and elective procedures: Improving standards http://www.diabetologists-abcd.org.uk/JBDS/Surgical_guidelines_2015_full_FINAL_amended_Mar_2016.pdf

- Highs and Lows, NCEPOD London 2018 https://www.ncepod.org.uk/2018pd/Highs%20and%20Lows_Full%20Report.pdf

- National Diabetes Inpatient Audit, England and Wales, 2017 https://files.digital.nhs.uk/pdf/s/7/nadia-17-rep.pdf