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GENERAL HOSPITAL GLASGOW

PCDS MASTERCLASS

WHAT COULD WE DO BETTER?

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DVLA GUIDANCE
FOR PLWD- WHO
SHOULD TEST
AND WHEN

SICK DAY
GUIDANCE

CONTRACEPTION-
KEY
CONSIDERATIONS

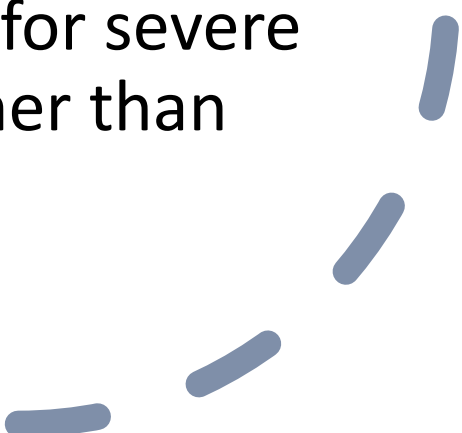



Blood glucose monitoring and diabetes: DVLA

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Assessing fitness to drive


- <https://www.gov.uk/government/publications/assessing-fitness-to-drive-a-guide-for-medical-professionals>
 - May 2022 & Jan 2024
 - High level changes
 - Flash/CGM allowed Gp1
 - Clarification of medical standard for diabetes managed by medication other than insulin
 - Clarification of medical standard for severe hypoglycaemia due to causes other than diabetes management
- 



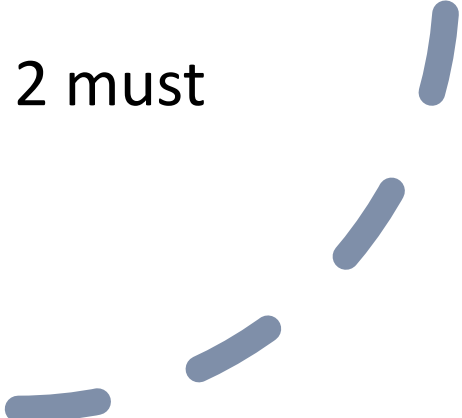
Adequate
awareness of
hypoglycaemia

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- SAFE CONTROLLED STOP UNDERPINS THE SAFETY REQUIREMENT
- 



Adequate awareness of hypoglycaemia

- ‘the licence holder/ applicant is capable of bringing their vehicle to a safe controlled stop.’
 - Reliance on alarms is not accepted as a substitute for adequate symptoms
 - Impaired awareness- an inability to detect the onset of hypo because of total absence of warning symptoms
 - Severe hypoglycaemia- an episode of hypoglycaemia requiring the assistance of another person
 - Caveats – sleep- group 1 ok. Group 2 must report all episodes.
- 

Flash gm and rt-cgm

- **Group 1**
 - Can be used but must carry finger prick cbgm for confirmation
 - Confirmation cbg < 4 / symptoms of hypo / reading does not clinically correlate.
- **Group 2**
 - No permitted
 - Must use finger prick tests

Monitoring- 2 hour rule

DO NOT DRIVE IF CBG < 4, SNACK IF CBG < 5

Group 1 car and motorcycle

- glucose testing no more than 2 hours before the start of the first journey and
- every 2 hours after driving has started
- a maximum of 2 hours should pass between the pre-driving glucose test and the first glucose check performed after driving has started
- applicants will be asked to sign an undertaking to comply with the directions of the healthcare professionals treating their diabetes and to report any significant change in their condition to DVLA immediately

More frequent self-monitoring may be required with any greater risk of hypoglycaemia (physical activity, altered meal routine).



Monitoring Group 2

- Group 2- twice daily on days off
- 2 hour rule
- AND more frequently if altered routine/ activity
- Need meter with memory function

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Hypos

- GROUP 1
 - **MORE THAN 1 EPISODE** , WHILE AWAKE IN THE PAST 12 MONTHS
 - MUST NOT DRIVE AND MUST NOTIFY
- GROUP 2
 - AFTER EVERY SEVERE HYPO IN THE LAST 12 MONTHS
 - MUST NOTIFY AFTER ALL EPISODES OF SEVERE HYPO

ALL GROUP 1 AND 2 WHO HAVE A SEVERE HYPO WHILE DRIVING MUST NOT DRIVE AND MUST NOTIFY

Oral meds

	Group 1 car and motorcycle	Group 2 bus and lorry
Managed by tablets carrying hypoglycaemia risk		
Including sulphonylureas and glinides (for example Repaglinide, Nateglinide)	<p>▲ May drive and need not notify DVLA, provided:</p> <ul style="list-style-type: none">■ no more than 1 episode of severe hypoglycaemia while awake in the last 12 months and the most recent episode occurred more than 5 months ago■ should practise appropriate glucose monitoring at times relevant to driving■ under regular review <p>It is appropriate to offer self monitoring of blood glucose at times relevant to driving to enable the detection of hypoglycaemia.</p> <p>If the above requirements and those set out in Appendix D (page 127) are met, DVLA need not be informed.</p> <p>DVLA must be notified if clinical information indicates the agency may need to undertake medical enquiries.</p>	<p>▲ May drive but must notify DVLA. All the following criteria must be met for DVLA to issue a licence for 1, 2 or 3 years:</p> <ul style="list-style-type: none">■ no episode of severe hypoglycaemia in the last 12 months■ full awareness of hypoglycaemia■ regular self-monitoring of blood glucose – at least twice daily and at times relevant to driving i.e. no more than 2 hours before the start of the first journey and every 2 hours while driving■ demonstrates an understanding of the risks of hypoglycaemia■ has no disqualifying complications of diabetes that mean a licence will be refused or revoked, such as visual field defect

Insulin

Group 1 car and motorcycle	Group 2 bus and lorry
<p>▲ Must meet the criteria to drive and must notify DVLA.</p> <p>All the following criteria must be met for DVLA to license the person with insulin-treated diabetes for 1, 2 or 3 years:</p> <ul style="list-style-type: none">■ adequate awareness of hypoglycaemia■ no more than 1 episode of severe hypoglycaemia while awake in the preceding 12 months and the most recent episode occurred more than 3 months ago (see recurrent severe hypoglycaemia guidance below)■ practises appropriate glucose monitoring as defined in the box below■ not regarded as a likely risk to the public while driving■ meets the visual standards for acuity and visual field (see Chapter 6, visual disorders, page 98)■ under regular review	<p>▲ Must meet the criteria to drive and must notify DVLA.</p> <p>All the following criteria must be met for DVLA to license the person with insulin-treated diabetes for 1 year (with annual review as indicated last below):</p> <ul style="list-style-type: none">■ full awareness of hypoglycaemia■ no episode of severe hypoglycaemia in the preceding 12 months■ practises blood glucose monitoring with the regularity defined in the box below.■ must use a blood glucose meter with sufficient memory to store 3 months of readings as detailed below■ demonstrates an understanding of the risks of hypoglycaemia■ no disqualifying complications of diabetes (see page 77) that would mean a licence being refused or revoked, such as visual field defect (see Chapter 6, visual disorders, page 98)

Exception is temporary insulin < 3 months for group 1



DIABETES AND YOUR DRIVING LICENCE

SAFE DRIVING AND THE DVLA

To help ensure safe driving,
this leaflet includes:

- The law: Your responsibilities
- Do I need to notify the DVLA?
- What if I have an accident?
- Other circumstances
- Safe Driving



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Driver & Vehicle
Licensing
Agency

INF294

A guide to **insulin treated diabetes** and **driving**



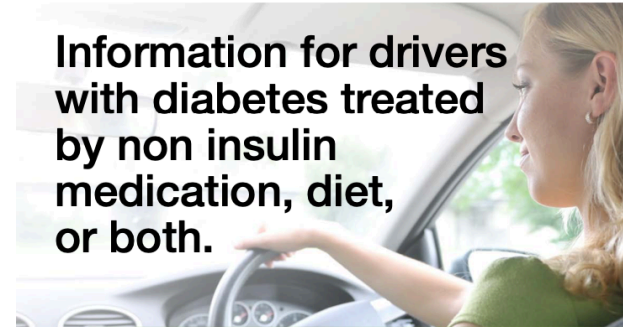
Drivers who have any form of diabetes treated with any insulin preparation must inform DVLA.



Driver & Vehicle
Licensing
Agency

INF188/2

Information for drivers with diabetes treated by non insulin medication, diet, or both.



Please keep this leaflet safe so you can refer to it in the future

Car and motorcycle drivers do not need to tell us if their diabetes is treated by tablets, diet, or both and they are free of the complications listed over the page. There are different rules if you have passed your test to drive lorries or buses (group 2). Please visit gov.uk/diabetes-driving

Some people with diabetes develop associated problems that may affect their driving.

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Other
considerations

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- Insurance
- Vision
- Amputation
- Neuropathy
- Renal disease

Case 1

- 57 year old man
- T2 dm 8 years bmi 34. a1c 72
- Met 2g empa 10mg semaglutide 1mg
- Does he:
- Need to monitor?
- Need to notify?
- What would change this?

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Case 2

- 67 year old female
- Type 2 dm 12 years
- Bmi 31 a1c 63 egfr 52
- Mtf 1g semaglutide 1mg glic 80 mg bd
- Does she:
- Need to monitor?
- Need to notify?
- What would change this?
- Severe hypo 2 months ago
- Insulin therapy

summary

When to inform the DVLA	Group 1 (Car, motorcycle)	Group 2 (LGV/PCV)
Managed by diet alone	✗	✗
Tablets not included below. These have a low risk of causing hypos	✗	✓
Tablets that carry a risk of hypos. This includes sulphonylureas, such as gliclazide, and glinides (repaglinide and nateglinide)	✗	✓
You should inform the DVLA if you have a severe hypo	More than one episode of severe hypo while awake in the preceding 12 months	Single episode of severe hypo even if this happened during sleep
Non-insulin injections	✗	✓
Insulin	✓	✓
If you have hypo unawareness you must not drive and must notify the DVLA	Driving may resume after a clinical report by a GP or Consultant Diabetes Specialist confirms that hypoglycaemia awareness has been regained	The licence will be refused or revoked
If you take insulin for less than 3 months eg. following a heart attack	✗	✓
If you continue to take insulin for more than 3 months after delivery of your baby	✓	✓

SICK DAY GUIDANCE DURING INTERCURRENT ILLNESS

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- **MANAGE GLUCOSE LEVELS**
- **ENSURE ADEQUATE CALORIE INTAKE AND HYDRATION**
- **TEST FOR AND MANAGE KETONES**
- **RECOGNISE WHEN FURTHER MEDICAL ATTENTION IS REQUIRED**



CONDITIONS
WHICH SHOULD
TRIGGER ADVICE

- NOT TO BE CONFUSED
- THE COMMON COLD
 - INFLUENZA/ COVID
 - D&V
 - UTI
 - CHEST INFECTION/ PNEUMONIA
 - ABSCESS
 - INJURY EG FRACTURE

'SICK' DAY RULES

General advice for managing diabetes during intercurrent illness

S (Sugar)

- Blood glucose levels can rise during illness even if the person is not eating
- Advise to increase blood glucose monitoring if the person has access to it
- Diabetes medications (sulfonylureas and insulin doses) may need to be increased temporarily during illness to manage these raised glucose levels

I (Insulin)

- **NEVER** stop insulin or oral diabetes medications*
- Insulin doses may need to be increased during illness, especially if ketones are present
- Specific advice for people on insulin therapy is presented overleaf

C (Carbohydrate)

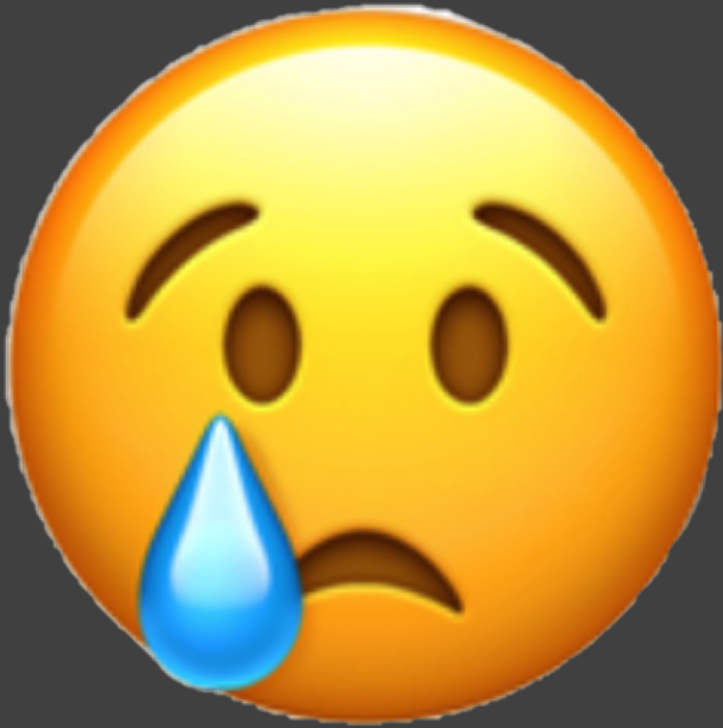
- Ensure the person maintains hydration and carbohydrate intake
- If the person is not able to eat or is vomiting, advise to replace meals with sugary fluids
- If blood glucose levels are high, maintain fluid intake with sugar-free fluids
- If blood glucose levels are low, encourage regular intake of sugary fluids

K (Ketones)

- In type 1 diabetes, advise to check for ketones every 4–6 hours. If present, check every 2 hours
- Give **extra rapid-acting insulin doses** (in addition to regular doses) based on total daily insulin dose if ketones are present – see insulin algorithm overleaf
- Advise to drink plenty of water to maintain hydration and flush through ketones

*Metformin and SGLT2 inhibitors may need to be temporarily stopped if at risk of dehydration (see SADMAN rules below).

SADMAN



- S
- A
- D
- M
- A
- N

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- SGLT2
- ACEI
- DIURETICS
- METFORMIN
- ARB'S
- NSAIDS

SADMAN

SADMAN rules: There are several classes of drugs that should be temporarily stopped in conditions that could lead to complications

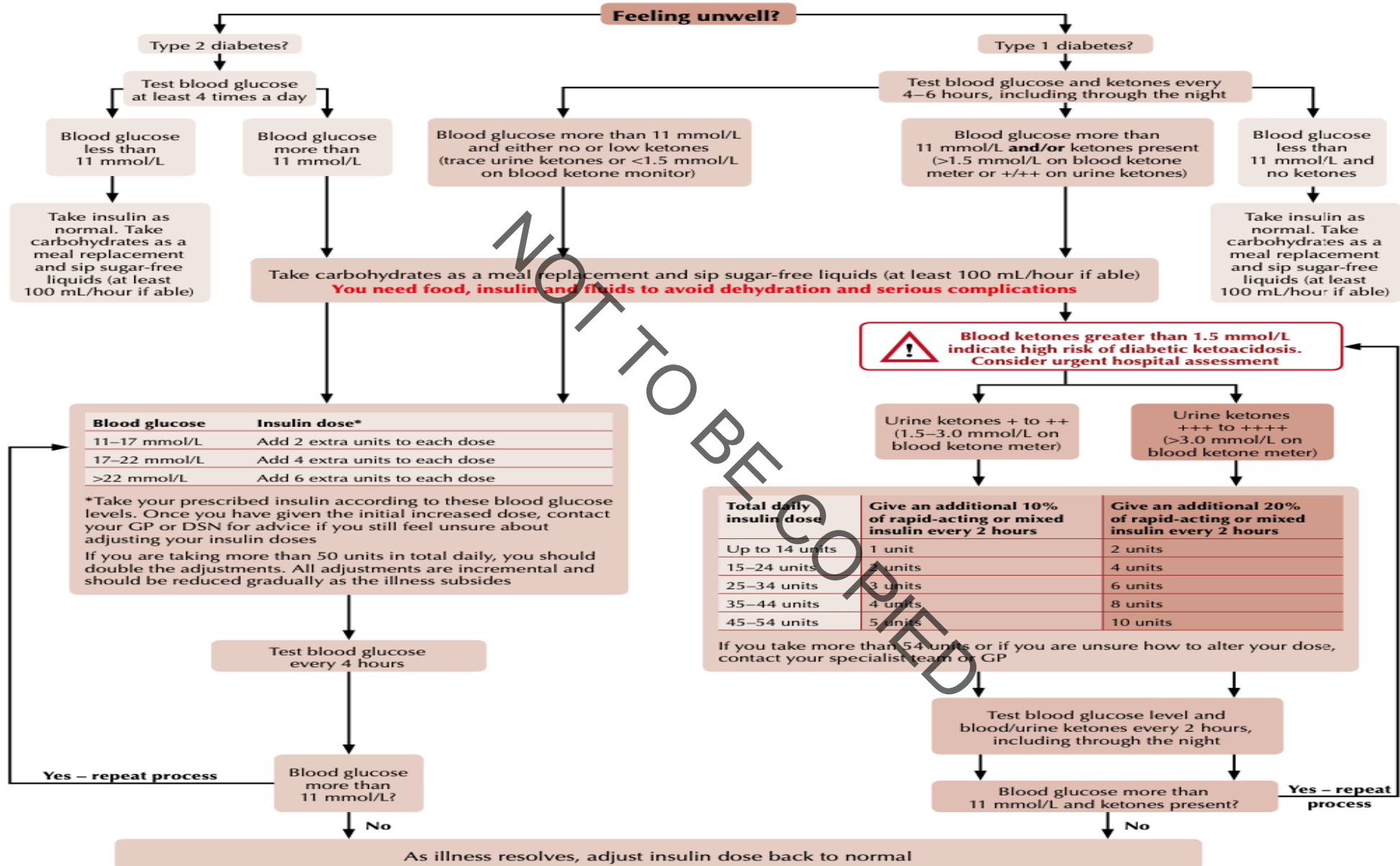
S	SGLT2 inhibitors	If taken during an acute illness that can lead to dehydration, there is an increased risk of developing euglycaemic DKA
A	ACE inhibitors	If taken during an acute illness that can lead to dehydration, there is an increased risk of developing AKI due to reduced renal efferent vasoconstriction
D	Diuretics	If taken during an acute illness that can lead to dehydration, there is an increased risk of developing AKI
M	Metformin	If taken during an acute illness that can lead to dehydration, there is an increased risk of developing lactic acidosis
A	ARBs	If taken during an acute illness that can lead to dehydration, there is an increased risk of developing AKI
N	NSAIDs	If taken during an acute illness that can lead to dehydration, there is an increased risk of developing AKI due to reduced renal afferent vasodilation

ORAL GLP-1

CARE WITH CKD

Once the person is feeling better and able to eat and drink for 24–48 hours, these medications should be restarted.

Advice for people on insulin



! If you start vomiting, are unable to keep fluids down or are unable to control your blood glucose or ketone levels, SEEK URGENT MEDICAL ADVICE DO NOT STOP TAKING YOUR INSULIN EVEN IF YOU ARE UNABLE TO EAT

Adapted from:
 TREND-UK (2018)
 Type 1 diabetes: What to do when you are ill;
 and TREND-UK (2020)
 Type 2 diabetes: What to do when you are ill

EDUCATION

Medicine Sick Day Rules

NHS

When you are unwell with any of the following:

- Vomiting or diarrhoea (unless only minor)
- Fevers, sweats and shaking

Then **STOP** taking the medicines listed overleaf

Restart when you are well (after 24-48 hours of eating and drinking normally). If you are in any doubt, contact your pharmacist, GP or nurse.

Initially produced by NHS Highland. Reproduced by Dudley Clinical Commissioning Group.



Medicines to stop on sick days

- ACE inhibitors: medicine names ending in 'pril'
e.g. lisinopril, perindopril, ramipril
- ARBs: medicine names ending in 'sartan'
e.g. losartan, candesartan, valsartan
- NSAIDs: anti-inflammatory pain killers
e.g. ibuprofen, diclofenac, naproxen
- Diuretics: sometimes called 'water pills' e.g. furosemide,
spironolactone, indapamide, bendroflumethiazide
- Metformin: a medicine for diabetes
- SGLT2 inhibitors: medicine names ending in 'gliflozin'
e.g. canagliflozin, dapagliflozin, empagliflozin
- Other (please state): _____

This list is not exhaustive.

When to restart?

- After 24-48 hours of eating and drinking normally.

CONTRACEPTION

- UKMEC
- SPECIAL POPULATIONS
- CONSIDERATIONS FOR TIRZEPATIDE



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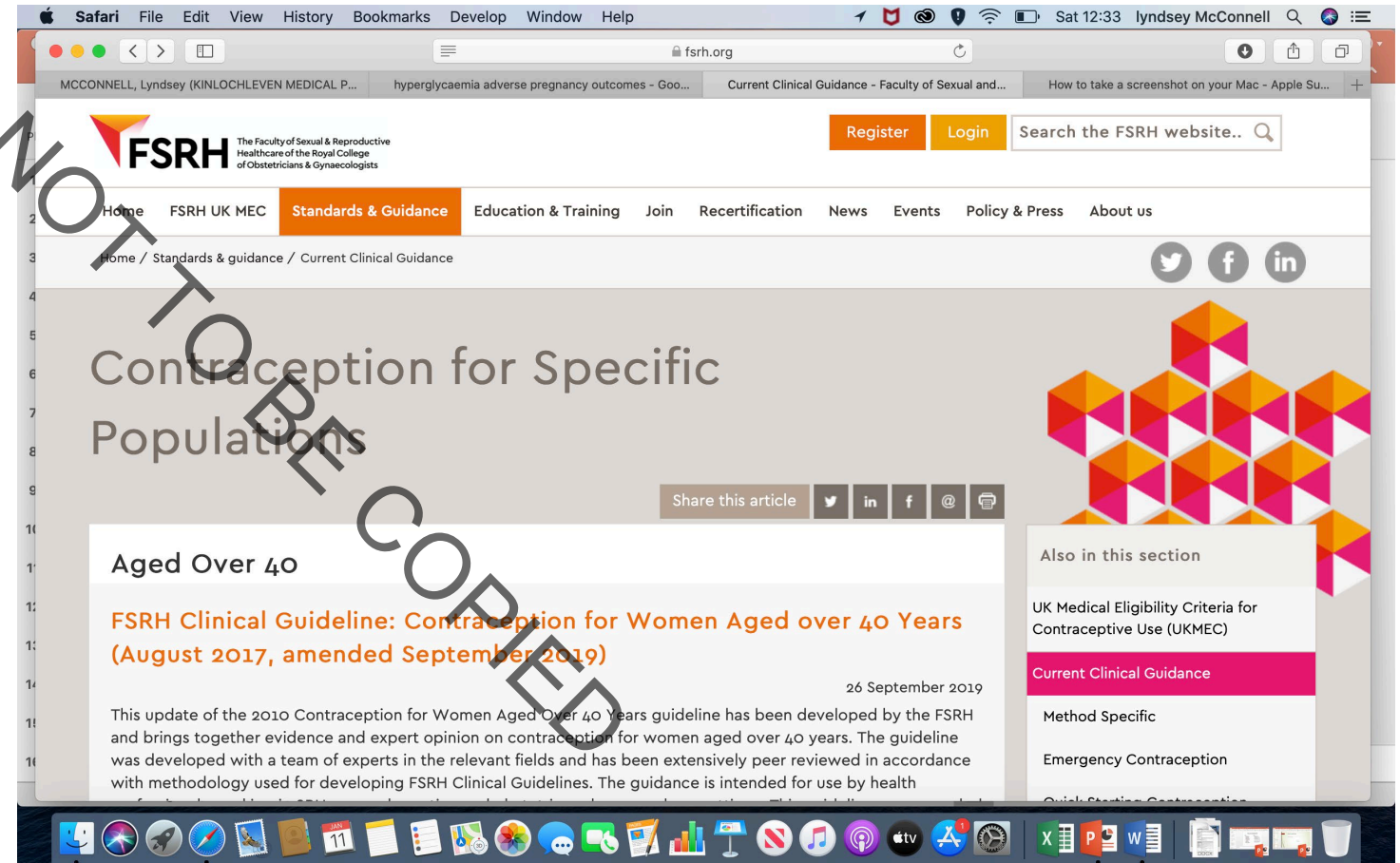
- GLYCAEMIC CONTROL AT CONCEPTION / ANTENATALLY
- PRECONCEPTION CARE IS PARAMOUNT
- PRE-PREGNANCY REFERRAL
- NO RESTRICTION TO EMERGENCY CONTRACEPTION
- LEVONORGESTREL DOSE IF HIGH BMI
- CONSIDER MEDICATION REVIEW

REMEMBER FOLIC ACID 5MG



SPECIAL POPULATIONS

- FSRH
- OVER 40'S
- CARDIAC DISEASE
- OVERWEIGHT AND OBESE
- UKMEC (MEDICAL ELIGIBILITY CRITERIA FOR CONTRACEPTIVE USE)



<https://www.fsrh.org/standards-and-guidance/current-clinical-guidance/contraception-for-specific-populations/>

CONDITION	Cu-IUD	LNG-IUS	IMP	DMPA	POP	CHC
	I = Initiation, C = Continuation					

ENDOCRINE CONDITIONS						
Diabetes						
a) History of gestational disease	1	1	1	1	1	1
b) Non-vascular disease						
(i) Non-insulin dependent	1	2	2	2	2	2
(ii) Insulin-dependent	1	2	2	2	2	2
c) Nephropathy/retinopathy/neuropathy	1	2	2	2	2	3
d) Other vascular disease	1	2	2	2	2	3

UKMEC Calculator

PERSONAL CHARACTERISTICS AND REPRODUCTIVE HISTORY	∨
CARDIOVASCULAR DISEASE (CVD)	∨
NEUROLOGICAL AND DEPRESSIVE CONDITIONS	∨
BREAST AND REPRODUCTIVE TRACT CONDITIONS	∨
INFECTIONS (including STIs)	∨
ENDOCRINE AND GASTROINTESTINAL CONDITIONS	∨
ANAEMIAS AND RHEUMATIC DISEASES	∨

RESULTS

Results will automatically update here when you enter data

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UKMEC.co.uk

35 year old T2 DM

Oral therapies

No complications

Parous

Hypertension during previous pregnancy

Smoker 10 cpd

BMI 32. BP 118/68 mmHg

PERSONAL CHARACTERISTICS AND REPRODUCTIVE HISTORY ^

Age

35

Parity

Nulliparous Parous

Breastfeeding

No Yes

Postpartum (and not breastfeeding)

Select an option

Choose option ...

For non-intrauterine contraception

Other risk factors for VTE?

No Yes

Smoking

Never smoked Yes / Ex-smoker

****YOU MUST SELECT AN OPTION****

<15 cigarettes/day

Obesity

BMI 30-34 BMI ≥35

Remove

History of pelvic surgery

No Yes

History of bariatric surgery

With BMI <30 With BMI ≥30-34

With BMI ≥35

CARDIOVASCULAR DISEASE (CVD) ^

Multiple risk factors for CVD e.g. smoking, diabetes, hypertension, obesity, dyslipidaemias

No Yes

If hypertensive, select an option

Hypertension

Adequately controlled hypertension

Remove

History of high BP during pregnancy

No Yes

Current and history of ischaemic heart disease

No Yes

ENDOCRINE AND GASTROINTESTINAL CONDITIONS ^

Select any that apply

Diabetes

Non-vascular disease: Non-insulin dependent

Remove

UKMEC CATEGORY	DEFINITION OF CATEGORY
1	A condition for which there is no restriction for the use of the method
2	A condition where the advantages of using the method generally outweigh the theoretical or proven risks
3	A condition where the theoretical or proven risks usually outweigh the advantages of using the method. The provision of a method requires expert clinical judgement and/or referral to a specialist contraceptive provider, since use of the method is not usually recommended unless other more appropriate methods are not available or not acceptable
4	A condition which represents an unacceptable health risk if the method is used

Levonorgestrel-releasing intrauterine system (LNG-IUS) ⬆

CONDITION	CATEGORY
Age (35)	1
Parity (Parous)	1
Smoker (Age 35 or older) <15 cigarettes/day	1
Obesity (BMI 30-34)	1
Multiple risk factors for CVD	2
Hypertension Adequately controlled hypertension	1
History of high BP during pregnancy	1
Diabetes Non-vascular disease: Non-insulin dependent	2

Progestogen-only pill (POP) ⬆

CONDITION	CATEGORY
Age (35)	1
Parity (Parous)	1
Smoker (Age 35 or older) <15 cigarettes/day	1
Obesity (BMI 30-34)	1
Multiple risk factors for CVD	2
Hypertension Adequately controlled hypertension	1
History of high BP during pregnancy	1
Diabetes Non-vascular disease: Non-insulin dependent	2

Copper-bearing intrauterine device (Cu-IUD) ⬆

CONDITION	CATEGORY
Age (35)	1
Parity (Parous)	1
Smoker (Age 35 or older) <15 cigarettes/day	1
Obesity (BMI 30-34)	1
Multiple risk factors for CVD	1
Hypertension Adequately controlled hypertension	1
History of high BP during pregnancy	1
Diabetes Non-vascular disease: Non-insulin dependent	1

Progestogen-only injectable (DMPA) ⬆

CONDITION	CATEGORY
Age (35)	1
Parity (Parous)	1
Smoker (Age 35 or older) <15 cigarettes/day	1
Obesity (BMI 30-34)	1
Multiple risk factors for CVD	3
Hypertension Adequately controlled hypertension	2
History of high BP during pregnancy	1
Diabetes Non-vascular disease: Non-insulin dependent	2

Combined hormonal contraception (CHC) ⬆

CONDITION	CATEGORY
Age (35)	1
Parity (Parous)	1
Smoker (Age 35 or older) <15 cigarettes/day	3
Obesity (BMI 30-34)	2
Multiple risk factors for CVD	3
Hypertension Adequately controlled hypertension	3
History of high BP during pregnancy	2
Diabetes Non-vascular disease: Non-insulin dependent	2

TIRZEPATIDE

DELAYS GASTRIC EMPTYING

MAY AFFECT ABSORPTION OF ORAL MEDS

REDUCED EFFICACY CANNOT BE EXCLUDED

WOMEN WITH HIGH BMI ON ORAL CONTRACEPTION

USE BARRIER FOR 4 WEEKS AT INITIATION AND FOR 4 WEEKS AFTER ANY DOSE ESCALATION

SWAP TO NON HORMONAL METHOD

STOP AT LEAST 1 MONTH PRIOR TO A PLANNED PREGNANCY



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ANY QUESTIONS?