

# Insulin pump management in pregnancy whilst inpatient

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Approved by	Maternity Governance Meeting 16 <sup>th</sup> May 2025					
Date of Approval						
Date of next review This is the most current document and is to be used until a revised version is available	16 <sup>th</sup> May 2028					

### **Aim and scope of Standard Operating Procedure**

To provide clarity on the use of insulin pumps during pregnancy whilst an inpatient, in labour and following steroid administration.

### **Target Staff Categories**

Midwives and Doctors providing care where insulin pumps are in use.

## **Key amendments to this Standard Operating Procedure**

Date	Amendment	Approved by:		
April 2025	New SOP	MGM		



#### **Background**

Insulin pumps are used to treat Type 1 DM. Insulin pumps deliver only rapid acting insulin. They replace background insulin by delivering this rapid acting insulin automatically every few minutes. Hybrid Closed Loop (HCL) systems consist of an insulin pump and a continuous glucose monitor (CGM). HCL systems will automatically increase or decrease insulin delivery based on where glucose levels are / are predicted to go. There is only one HCL system licensed for use in pregnancy which is the Ypsomed pump with a Libre 3 or Dexcom G6 sensor. All ladies with Type 1 DM will be offered to use/change to this system during pregnancy. Insulin pumps should only be removed if the patient is no longer able to manage the pump themselves or we suspect the pump has malfunctioned.

Patients on HCL systems should have a plan on Badgernet for their pumps, please check this on admission before proceeding with cares.

#### Admission to hospital

Patients using HCL systems will need to be able to manage this system themselves. The insulin should be prescribed on the usual insulin prescription chart. For example:

Novorapid via insulin pump continuous subcutaneous infusion.

If a patient was admitted and was unable to continue using their pump, they should be commenced on sliding scale and the insulin pump removed until review by a member of the DSN team. Consider starting long-acting insulin alongside if likely to be on IV insulin > 24hrs.

Patients are advised to bring all the necessary equipment for their HCL with them to hospital, the Diabetes team do not have supplies of equipment for all the insulin pumps. If ordering insulin from pharmacy for patients on HCL you will need to order either insulin vials or pump carts (patients should be able to tell you which they usually use.)

#### **Sudden Elevated readings**

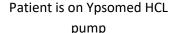
If readings become suddenly elevated with no explanation, it is likely either the cannula for the HCL is occluded, or the insulin pump has malfunctioned. Check Blood glucose and blood ketone levels. Encourage the patient to change the cannula for their pump and continue to monitor closely. If we suspect the patients pump is not working, then the patient will need to either switch to sliding scale or s/c insulin injections.



## Managing Insulin Pumps and administration of steroids/ during labour

If the patient is on HCL and is having steroids/ during labour

Leave the insulin pump running





Encourage patient to put 'Boost' function on 90 mins before first steroid injection until 12 hours after last steroid administered

(this will allow pump to administer 30% more insulin if needed and should manage hyperglycemia more effectively than sliding scale) Patient is on any other HCL pump



Advise patient to use pump as they usually would to manage their glucose levels.



If blood glucose levels remain above targets:

- Start sliding scale as per guidelines
- Ask patient to enter 'manual mode' on their pump and continue this alongside
- Ask patient NOT to give any mealtime 'bolus' doses via their pump whilst on sliding scale



# Monitoring

Page/	Key control:	Checks to be carried out	How o	often	Responsible	Results of	check	Frequency
Section of		to confirm compliance with	the cl	heck	for carrying	reported to:		of
Key Document		the Policy:	will carried	be out:	out the check:	(Responsible of ensuring action developed to any areas of compliance)	ons are address	reporting:
	WHAT?	HOW?	WHEN?	?	WHO?	WHERE?		WHEN?
	Review for management of insulin pumps	Badgernet Notes review for management of insulin pumps	Adhoc		Diabetes Midwife	MGM		As Required

Ref WAHT-SOP-146 Page **4** of **4** Version 1