OVARIAN HYPERSTIMULATION SYNDROME [OHSS]

CARE PATHWAY

Patient ID label (Pt receiving treatment)	ALERT LABEL IF APPLICABLE

Pages 1-3 to be completed by Wales Fertility Institute Clinical Team before referral to the Gynaecology Emergency Department

Date pathway started		
Consultant:		
Telephone number:		
Permission to contact using this number	**Yes**	**No**
GP Name/Surgery		
Permission to contact GP? CTD completed correctly?	**Yes**	**No**
Source of admission	**WFI**	**Other** please indicate
Next of Kin [Name/Relationship]	Name	Relationship
Next of Kin contact number:		
Next of Kin aware of admission?	**Yes**	**No**

ASSISTED REPRODUCTION TREATMENT HISTORY:	
Number of eggs collected	
Date of egg collection	

Please circle all below as appropriate:		
Was a freeze all undertaken	Yes	No
Type of stimulation	Gonadotrophins	Clomiphene/ Letrozole
Type of trigger	HCG	GnRH agonist
Down Regulation ongoing	Yes	No
Were embryos transferred	Yes	No
Carbergoline commenced	Yes	No
VTE prophylaxis commenced	Yes	No
HFEA Report completed	Yes	No
Patient information leaflet given	Yes	No

SYMPTOMS/DIAGNOSIS

Please circle all below as appropriate:		
Abdominal Pain Mild	Moderate	Severe
Abdominal distention	Yes	No
Nausea	Yes	No
Vomiting	Yes	No
Dyspnoea	Yes	No
Oligi/anuria	Yes	No
Chest Pain	Yes	No
Clinical suspicion of DVT	Yes	No

EXAMINATION:

Weight		
Abdominal girth		
Pulse		
Blood Pressure		
Respiratory Rate		
Lower Limbs – swelling	Yes	No
Lower Limbs - pain	Yes	No
Urine HCG positive	Yes	No

INVESTIGATIONS:
PELVIC ULTRASOUND SCAN

INSERT SCAN PICTURES

USS Report:

Ovarian enlargement Please circle	<8 cm 8-12 cm >12 cm	
Ascites	Yes	No
Hydrothorax	Yes	No

FULL BLOOD COUNT	
Haematocrit Please circle	≤ 0.44 0.45 – 0.54 ≥ 0.55
WCC	≤ 25.0 x 109/L ≥ 25.0 x 109/L
Platelets	

ESTRADIOL LEVEL	
Please circle	≤ 10,000 ≥ 10,000

LFT	
Albumin	
Total Protein	
ALT	
Billirubin	
Alk Phos	

U/E/Cr	
Sodium	
Potassium	
Urea	
Creatinine	

Clotting Profile	
APTT	
Thrombin Clotting Time	
Prothrombin Time	

CXR [if respiratory symptoms]	Yes	No

ECG and Echocardiogram [if suspicion of pericardial effusion	Yes	No

Name	
Grade	

Signature	
Date and Time	

MANAGEMENT ON ADMISSION TO GYNAECOLOGY EMERGENCY WARD

Date of referral to ward	
Referral made by	

Reason for admission: Please circle:	Persistent moderate OHSS Worsening mild or moderate OHSS Severe OHSS Critical OHSS Symptoms suggestive of complications of OHSS

ASSESSMENT

Please circle all below as appropriate:		
Abdominal Pain	Yes	No
Nausea	Yes	No
Vomiting	Yes	No
Dyspnoea	Yes	No
DVT/PE suspected	Yes	No
Urine Output	Normal Oliguria Anuria	

EXAMINATION:	
Weight	
Abdominal distention	
Abdominal girth	
Pulse	
Blood Pressure	

CHEST FINDINGS:		
Heart sounds	**Yes**	**No**
Heart murmurs	**Present**	**Absent**
Air Entry	**Right ……**	**Left ……**
Added sounds	**Yes**	**No**

INVESTIGATIONS:
• Review blood tests or repeat if not done within 24 hours: Record all available results onto Table 1
• Review **CXR, echo** and pelvic USS. Record results on Table 3.

If pleural effusion refer to medical team	
If DVT/PE discuss with WFI clinical team and Radiology Department	
PLAN OF ACTION:	
Analgesia required	Yes No If yes, Paracetamol or Codeine should be given. Non-steroidal anti-inflammatory drugs are NOT recommended.
If dyspnoeic give Oxygen. Improvement with oxygen	 Yes No If no review CXR
Anti-emetics required	Yes No If yes, drugs used should be those appropriate for use in early pregnancy if embryos were transferred
IV access	Yes No Maximum intake of fluid IV and Oral should be 3L in 24 hours. IV fluid should be colloid and NOT crystalloid
Oliguria or Anuria	Yes No If yes, indewelling catheter and input output chart. AVOID diuretics
If ascites present	Not tense? Tense and Dyspnoeic Yes No If tense for review by Senior Doctor or clinician from WFI Team for consideration of paracentesis
Thromboprophylaxis for all women Based on local protocol and BMI Anti-embolic stockings	 Yes No Yes No
Down regulation medication	Yes No If yes continue until there is a withdrawal bleed
Progesterone luteal support IF embryos were transferred	Yes No If no, restart
High protein diet	Yes No If no, seek advice from dietician
Haematocrit ≥ 0.45	Yes No If yes, IV fluids regime as above.
Albumin ≤ 28 mg/dl	Yes No

	If yes, discuss with Senior Doctor of WFI clinical team for consideration of starting 100 ml of 20% albumin

CLINICAL CONTINUATION SHEET:

CLINICAL CONTINUATION SHEET:

TABLE 1: Daily blood results

Date							
Haemoglobin*							
Haematocrit*							
Platelets*							
Albumin*							
White Cell Count							
CRP							
Thrombin clotting time							
APTT							
Fibrinogen							
Alk Phos							
AST							
Bilirubin							
Sodium							
Potassium							
Creatinine							
Urea							

*Essential that these are undertaken daily

TABLE 2: Daily Girth and Weight Measurements

Date							
Abdominal girth*							
Weight in KG							

*****To be measured at the same place

TABLEe 3: Ultrasound findings

Date							
Ascites							
Rt ovary diameter							
Lt ovary diameter							
Other							

NB: USS should only be repeated if condition worsens.

OVARIAN HYPERSTIMULATION SYNDROME (OHSS)

Background:

OHSS is a systemic disease resulting from vasoactive products released by hyperstimulated ovaries. The pathophysiology of OHSS is characterised by increased capillary permeability leading to leakage of fluid from the vascular component of into the third space. This is in turn leads to accumulation of fluid in the 3rd space and intravascular dehydration.

Moderate or severe OHSS affects 3-8% of IVF/ICSI cycles.

Severe manifestations include thrombosis, renal dysfunction, liver dysfunction and acute respiratory distress syndrome.

Types:
Early onset OHSS: Presents within 9 days of beta HCG injection. Usually mild or moderate and does not last long.

Late onset: Presents after 9 days. Reflects endogenous hCG stimulation from an early pregnancy. More likely to be severe and last longer than early OHSS.

Classification of OHSS

GRADE	SYMPTOMS
Mild OHSS	Abdominal Bloating Mild abdominal pain Ovarian size on USS <8 cm
Moderate OHSS	Moderate abdominal pain Nausea ± vomiting Ultrasound evidence of ascites Ovarian size 8-12 cm
Severe OHSS	Clinical ascites [occasionally hydrothorax] Oliguria Haematocrit > 45% Hypoproteinaemia Ovarian size > 12 cm
Critical OHS	Tense ascites or large hydrothorax Haematrocrit > 55%# White Cell Count > 25 Oligo/anuria Thromboembolism Acute Respiratory Distress Syndrome

Advice for Management of Mild and Moderate OHSS

Manage on an outpatient basis
Regular analgesia using Paracetamol or Codeine. Nonsteroidal anti-inflammatory drugs should not be used
Encourage women to drink to thirst rather than excess
Encourage women to eat high protein diet
Women should avoid strenuous exercise and sexual intercourse
Continue progesterone luteal support but not hCG luteal support
.Continue downregulation until bleeding starts
TEDS and Clexane 20mg-40mg once daily. 40mg if high risk
Carbegoline as prescribed
Review the following every other day ▪ Patient's Weight ▪ Abdominal girth ▪ Severity of abdominal pain ▪ Dyspnoea ▪ Urine output ▪ Pelvic USS ▪ FBC, LFT, U/E/Cr