Development of guidelines and protocol for in-patient management of Hyperemesis Gravidarum

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My interest

- HG often not managed as well as could be
  - GP, midwife, obstetrician
- Many options not considered
  - Ignorance, fear of prescribing
- Personally challenged by a patient in Sept 2005
- Started searching literature

Why?

- ‘a protocol for the management of HG should be available in all units to ensure accurate recognition, fluid, electrolyte and vitamin replacement and pharmacological treatment’

TOG 2003 Anne Marie Neill, Catherine Nelson-Piercy

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Level

- Fifth Outline Level

How to start?

- Gather information
- Read other units' guideline
- Write one which works for your unit

- Prepare a 'purpose and scope' for guideline

One example – far from perfect!

- Introduction
- Definition
- Diagnosis / differential diagnosis
- Clinical assessment
- Investigations
- Management – where and how?
  - Mild / moderate / severe

Multidisciplinary care

- GP
- Community midwife
- Early Pregnancy unit / gynaecology / maternity
- Pharmacist
- Dietician / nutritional team
- Laboratory support

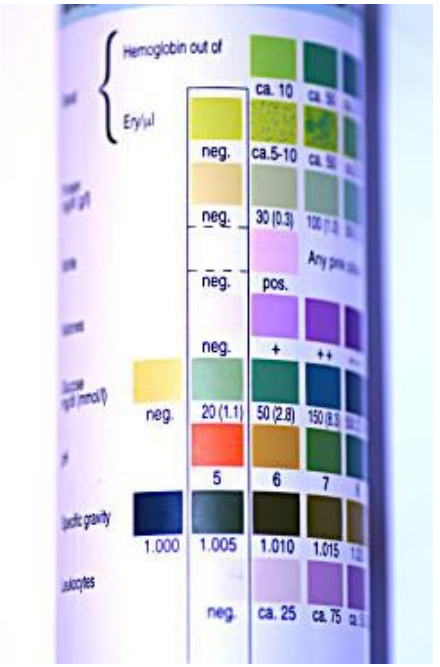
Pregnancy Sickness Support

Definition

- a) weight loss >5%
- b) onset of nausea and vomiting prior to 6 weeks gestation
- c) ketonuria on admission
- d) iv fluids for >1 week or >24 hours if a repeat admission
- e) vomiting at least twice per day or severe nausea precluding oral intake

Investigations

- Weight of patient
- Urinalysis
- FBC, U&E – possibly daily
- LFT, TFT
- Calcium & phosphate levels if severe
- Blood glucose
- MSSU



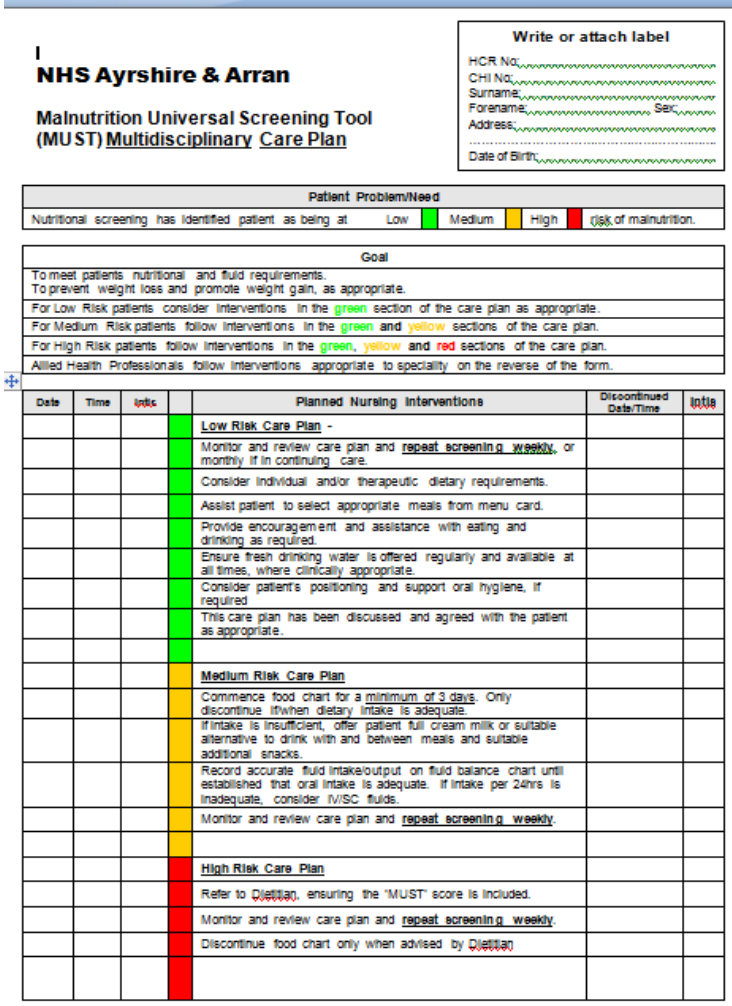
Management

- **Mild - Moderate**
- May be managed as out-patient
- Small, high carbohydrate, low fat, frequent meals
- Fluid replacement
- Acupressure
- ? ginger
- Consider prescribing an antiemetic

Management

- **Moderate - Severe**
- Admit to hospital (? Option of domiciliary care)
- Investigations as above
- Explanation of nature and natural history of hyperemesis
- Weight, pulse, lying and standing BP
- Fluid replacement – commence accurate fluid

Malnutrition Universal Screening Tool Multidisciplinary Care Plan



NHS Ayrshire & Arran

Malnutrition Universal Screening Tool (MUST) Multidisciplinary Care Plan

Write or attach label

HCR No:
CHI No:
Surname:
Forename: Sex:
Address:
Date of Birth:

Patient Problem/Need
Nutritional screening has identified patient as being at Low Medium High risk of malnutrition.

Goal
To meet patients nutritional and fluid requirements. To prevent weight loss and promote weight gain, as appropriate.
For Low Risk patients consider interventions in the green section of the care plan as appropriate.
For Medium Risk patients follow interventions in the green and yellow sections of the care plan.
For High Risk patients follow interventions in the green, yellow and red sections of the care plan.
Allied Health Professionals follow interventions appropriate to speciality on the reverse of the form.

Date	Time	Initis		Planned Nursing Interventions	Discontinued Date/Time	Initis
				Low Risk Care Plan -		
				Monitor and review care plan and repeat screening weekly, or monthly if in continuing care.		
				Consider individual and/or therapeutic dietary requirements.		
				Assist patient to select appropriate meals from menu card.		
				Provide encouragement and assistance with eating and drinking as required.		
				Ensure fresh drinking water is offered regularly and available at all times, where clinically appropriate.		
				Consider patient's positioning and support oral hygiene, if required		
				This care plan has been discussed and agreed with the patient as appropriate.		
				Medium Risk Care Plan		
				Commence food chart for a minimum of 3 days. Only discontinue if/when dietary intake is adequate.		
				If intake is insufficient, offer patient full cream milk or suitable alternative to drink with and between meals and suitable additional snacks.		
				Record accurate fluid intake/output on fluid balance chart until established that oral intake is adequate. If intake per 24hrs is inadequate, consider IV/SC fluids.		
				Monitor and review care plan and repeat screening weekly.		
				High Risk Care Plan		
				Refer to Dietitian, ensuring the "MUST" score is included.		
				Monitor and review care plan and repeat screening weekly.		
				Discontinue food chart only when advised by Dietitian		

Version 1 Review date: September 2010

Date	Time	Initis			Discontinued Date/Time	Initis
				Dietetic Intervention		
				Document outcome of dietetic assessment.		
				Estimate patient's daily protein, energy and fluid requirements.		
				If nutritional requirements cannot be met orally, consider artificial nutritional support with the multi-disciplinary team and the patient/carer.		
				Provide patient and carer if appropriate, with nutritional advice and support which meets their individual needs.		
				Nutrition Support Team (NST) Intervention		
				Document the outcome of NST assessment by team member.		
				Document required actions and inform patient and multi-disciplinary team as appropriate.		
				Speech and Language Therapy (SLT) Intervention		
				Document outcome of SLT swallowing assessment.		
				Document the recommended compensatory strategies/modified diet as appropriate. Ensure patient and multi-disciplinary team are aware.		
				Occupational Therapy (OT) Intervention		
				Document outcome of OT assessment.		
				Document any additional requirements and inform patient and multi-disciplinary team as appropriate.		
				Dental Intervention		
				Document the outcome of Dental assessment/consultation.		
				Document any required actions and inform patient and multi-disciplinary team as appropriate.		
				Physiotherapy Intervention		
				Document the outcome of Physiotherapy assessment.		
				Document any required actions and inform patient and multi-disciplinary team as appropriate.		

Version 1 Review date: September 2010

Fluid replacement

- If significant ketonuria, 1000ml 0.9% sodium chloride intravenously over 2-4hours. Hartmann's can also be used.
- Thereafter fluids should be reduced to 500ml 4-6 hourly, the regime being guided by U&E results which should be performed daily

  (remember low K levels can kill)
- Avoid glucose initially as it contains insufficient sodium and especially as

Antiemetics

- First line (antihistamines)
  - Cyclizine oral, im, iv
  - OR Promethazine Teoclate oral, im
- Second line (dopamine antagonists)
  - Prochlorperazine buccal, oral, im
  - Metoclopromide oral, im or s/c
  - Chlorpromazine oral

Third line

Other treatments

- pyridoxine may be effective in treating nausea
- Antacids eg ranitidine, omeprazole
- Steroids eg hydrocortisone iv, prednisolone oral
- Thiamine – prevention of Wernicke's encephalopathy

- Is TOP ever a treatment??

Enteral / parenteral feeding

- Nasogastric (NG) feeding
- Nasojejunal (NJ) feeding
- Parenteral nutrition (TPN)
  - Weigh up pros and cons
- Percutaneous endoscopic gastrostomy
  - PEG / PEGJ feeding
  - Beware re-feeding syndrome

Not on our guideline

- Debendox / Diclectin - pyridoxine+doxylamine
- Promethazine / Phenergan suppositories (not in BNF)
- Domperidone
- Ondansetron pump
- Hyoscine patches (scopolamine)
- Nosinan

Complementary / alternative Rx

- Acupuncture
- Homeopathy
- Hypnosis
- Massage

Discharge

- Advice on discharge
  - Contact numbers
  - Support group – phone no, web, Facebook
- Follow up
- Antenatal care
  - ?high risk antenatal care
- Future pregnancies

Future developments

- Out patient / home management
- RCOG green top guideline group
- Educational meetings

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…ss Support

The Scottish Parliament
Pàrlamaid na h-Alba

- Fifth Outline Level

Survey of Management of HG in Scottish Hospitals

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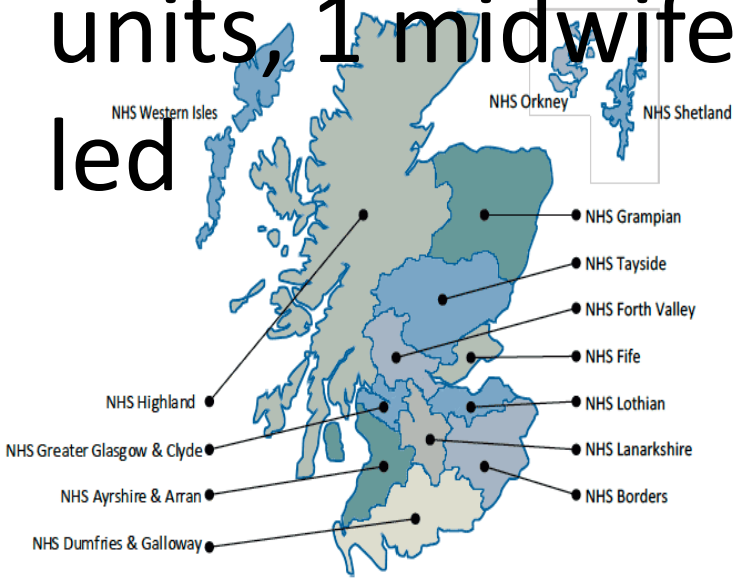
Ayrshire Maternity Unit

Geographical area

- 17 consultant led units, 1 midwifery led



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	Total Births	Live
Scotland	58889	58590
Ayrshire&Arran	3904	3887

Size of 18 units studied

- Aberdeen VL
- Ayrshire L
- Borders M
- Dumfries M
- Dundee VL
- Edinburgh VL
- Elgin M
- Forth Valley L
- Inverness M
- Kirkcaldy L
- Livingston M

- Very large = 6
- Large = 4
- Medium = 5
- Small = 2
- Midwifery = 1

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Questionnaire

- What ward do you admit women to with hyperemesis Antenatal /Gyn
- Do you manage women as out-patients for iv fluids? Yes / No
- If Yes, where do you do this EPAS / Day Care / Other
- Do you have a guideline for inpatient management Yes / No
- Do you always discharge women on an antiemetic Yes / No
- Do you give women with hyperemesis support groups info Yes / No
- eg Pregnancy Sickness Support Group (PSSG)
- Do you know how to refer to the PSSG Scottish Rep Yes / No

Results

- Admit to obstetrics 13
- Admit to gyn 5
- All but one small unit have guidelines
- 16 of 18 discharge on antiemetics
- 9 units offer out patient management
  - EPAS 1, triage 6, gyn 2
- Refer to support group (eg PSSG) 1

Results

- No unit has dietician with special interest
  - many wish they did have!
- Most indicated an interest in a Scottish Network
- Most indicated an interest in a study day

Next steps

- Emailed list of interested parties this week
  - At least one from each unit in Scotland
- Plan study day ? Spring 2014
  - Aim for GPs as well as hospital carers
- Promote ‘Pregnancy Sickness Support Group’ for women with HG

Pregnancy Sickness Support