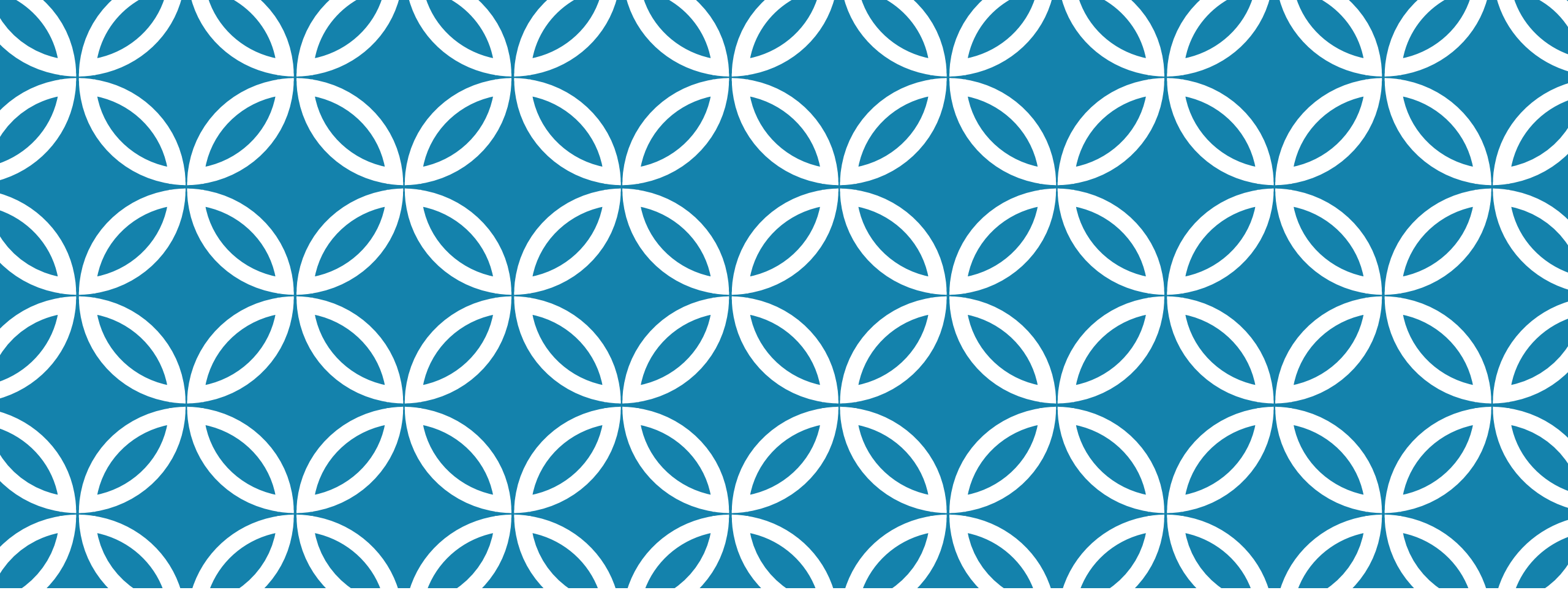


ANTENATAL CARE

Central Coast PHN Education
Dr Penelope Fotheringham

LEARNING OUTCOMES

- Understand models of care options for women
- Understand risk stratification for antenatal care and referral requirements
- Understand management of miscarriage and referral requirements
- Understand current management of hyperemesis and future changes
- Understand referral for hyperemesis to the CCLHD

CONTENT

Preconception

Models of antenatal care

Referral options

Early pregnancy complications

- Miscarriage diagnosis and management
- Uncertain ultrasound findings

PRECONCEPTION CARE

Minimise risk to subsequent pregnancy for mother and fetus

Comprehensive history of the woman and her partner should be done

Modifiable factors :

- Stabilise existing medical conditions
  - Referral or follow-up with specialists and allied health
- Rationalise medications – cease teratogens and seek advice if unsure
- Optimise weight and diet through good nutrition and physical activity
- Discussion of risks to pregnancy – foods, viral and bacterial contacts etc
- Cease harmful behaviours
  - Smoking, alcohol, illicit substances etc
- Determine possible risk category for a future pregnancy and counsel about possible models of care

PRECONCEPTION CARE

Prevention of harm in pregnancy with screening

- STI, CST, genetic carrier screening, blood group and Rh antibody screen, immunity for vaccine preventable diseases
- Offer vaccination as indicated
- Discuss/commence preventative medications such as folate, iodine, aspirin, calcium, vitamin D
- Mental health and safety screening
  - Provide supports and counselling options
  - Understand sociocultural influences on the woman and their impacts on antenatal care

Timing

- Contraception advice and cessation with patient timeframes
- Discussion of costs that will be involved in antenatal care
- Relevant to vaccination and medical conditions
- Need for referral to ART, other specialists and services prior to conception
- Eligible for the new clinic REFLECT clinic at Gosford Hospital

ANTENATAL VISITS

Australian pregnancy care guidelines recommend that a woman should have her first antenatal visit by **10 weeks**

The number of subsequent visits are determined by parity and risk

- First pregnancy a schedule of 10 visits is recommended:
  - 12, 16, 20, 24, 28, 31, 34, 36, 38, 39, 40, 41
- Subsequent low risk pregnancy a schedule of 7 visits is recommended
  - 12, 20, 28, 34, 36, 38, 40, 41

https://www.health.gov.au/resources/pregnancy-care-guidelines/part-b-core-practices-in-pregnancy-care/antenatal-visits

MODELS OF CARE

1. GP Antenatal shared care
2. Midwifery Group Practice
3. Midwifery led Antenatal care
4. Midwifery / Medical Antenatal care
5. Obstetric led Antenatal care
6. Private Midwifery care
7. Private Obstetric care

RISK STRATIFICATION

Women are classified into a risk category at referral following the relevant ACMI referral codes and additionally at the booking in appointment.

Each visit their health is assessed and risk reassessed for appropriate interventions

Guided by The National Midwifery Guidelines for Consultation and Referral

New initiatives:

- Safer Baby Bundle. Clinical Excellence Commission

Some parts more relevant for early primary care:

- Smoking cessation
- FGR screening
- Aspirin for prevention of FGR and pre-eclampsia

https://www.cec.health.nsw.gov.au/keep-patients-safe/maternity-and-neonatal-safety-program/Safer-Baby-Bundle#:~:text=The%20Stillbirth%20Centre%20for%20Research,of%20best%20practice%20maternity%20care.

REFERRAL

Need to know all information about a woman that could impact her pregnancy care

Assume that the hospital has no information on the woman and SEND EVERYTHING

Information that can't be found in tests results is especially important for continuity of care:

- Her views on the pregnancy and her health
- Psychosocial and cultural influences on their pregnancy
- Family supports that you know about
- Risks for the woman
  - Unsafe home environment, previous physical, sexual, coercive violence
- Previous pregnancy experiences
  - Remember the hospital doesn't know about her postnatal experiences and how they would affect her care

As you know, the formal booking in visit at the hospital covers this, but all staff want to offer person centred-care and clear communication aids this process

INITIAL ANTENATAL INVESTIGATIONS

To screen for potential conditions that can influence the pregnancy

- FBC +/- Fe studies
- Rubella
- Syphilis
- HIV
- Hep B/C
- 75g GTT if high risk prior to 16 weeks
- Urine m/c/s
- BHcG and dating ultrasound for viability

- Consider chlamydia/gonorrhoea/trichomonas
- Consider Vitamin D
- Consider CMV (ONLY IF they have risk factors for it)
- Consider Thyroid tests

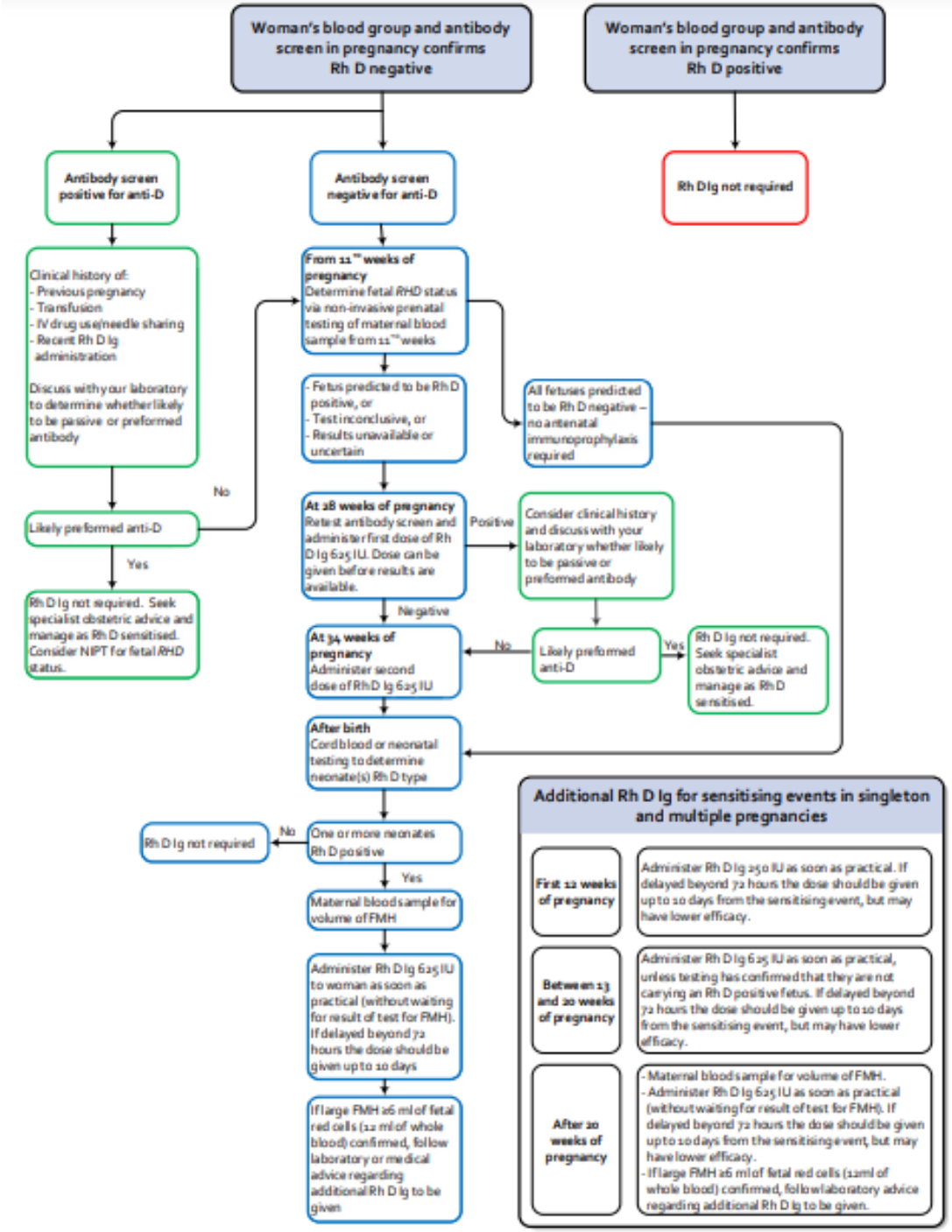
INITIAL ANTENATAL INVESTIGATIONS

Maternal

- Blood group and Rh status
- Antibody screening

National Blood Authority updated guidelines in 2021

- https://www.blood.gov.au/anti-d-0



FMH, fetomaternal haemorrhage; Ig, immunoglobulin; IU, international units; IV, intravenous.

- Flowchart outlines Anti-D screening points and Anti-D administration at 28 and 34 weeks, and postpartum if required for non-sensitised women
- Guideline contains information on sensitising events and administration of Anti-d
- Also information on the tests that are done when a sensitising event occurs and how the amount of Anti-d required is calculated
- Guideline recommends NIPT Fetal blood group for all
- Rh -ve women
- In the future fetal blood group screening may be universally offered through NIPT – currently only funded for certain high risk women
- https://www.blood.gov.au/testing-maternal-blood-determine-fetal-rhd-genotype

NIPT is currently publicly funded for high-risk pregnancies in the following categories:

1. High-risk Rh D negative pregnant women who are anti-D alloimmunised;
2. High-risk Rh D negative pregnant women with obstetric indications such as severe fetal maternal haemorrhage during pregnancy; or
3. Other unusual but rare scenarios such as allergy to the anti-D immunoglobulin.

DIAGNOSING PREGNANCY

Know the LMP and length of cycles to work out an EDD

Symptoms of pregnancy

Urine BHcG confirmed with quantitative blood BHcG

- Doubles every 48-72 hours
- Expect to see an intrauterine pregnancy on TVUS when the level is >1500-2000 IU/ml
- The "Discriminatory zone"
  - If not – non viable or twin pregnancy

By size of US structures

- Gestational sac mean diameter 25mm: should see fetal pole
- Fetal pole 7mm: should see fetal cardiac activity

WHAT IF IT ISN'T WHAT I EXPECT?

LOW

Non-viable

- Ultrasound does not correspond with dates and meets diagnostic criteria
- Ultrasound does not change in time interval of 7-10 days
- Bhcg static or decreasing
- Signs/Symptoms of physical miscarriage

Ectopic pregnancy

- Ultrasound suggests ectopic pregnancy
- BHcG static or slow rising
- Clinical presentation that correlates with peritoneal irritation from bleeding or ruptured ectopic pregnancy

HIGH

Multiple pregnancy

Partial Molar pregnancy

Complete Molar pregnancy

Malignancy

HOW DO YOU MANAGE A FAILED IUP?

Expectant

- Usually up to 2 weeks

Medical

- Misoprostol 800mcg PV
- Repeat 24-48hrs if no passage (although many different protocols exist)
- Should also provide analgesia and anti-emetics
- Success ~85% if <9 weeks

Surgical

- Dilation and curettage
- Success ~95-98%

MANAGEMENT OF TUBAL ECTOPIC PREGNANCY

Expectant

- If HCG < 200 and declining, and only in very selected cases

Surgical

- Only option if patient haemodynamically unstable
- Stable patient
  - LSC with salpingostomy
    - Requires serial post-op B-Hcg levels +/- MTX
  - LSC salpingectomy

Medical

- Methotrexate (MTX)
  - Folic acid antagonist (chemotherapeutic), renal clearance
  - Attacks actively proliferating cells
- Single dose MTX
  - Day 1: HCG, safety labs, MTX#1
  - Day 4: HCG
  - Day 7: HCG, safety labs
- Needs to drop by 15% from Day 4 or re-dose and recheck for 15% drop on Day 11 (2 Dose Protocol)
- If it drops ≥ 15%, follow HCG Q week to <5

REFERRAL TO EPAS

Referral can be from the GP or self-referral but usually GP will be contacted for information

If a woman is being referred all relevant pregnancy investigations should be sent, as well as a full medical history

Often women will be referred back to you for ongoing follow-up whether the pregnancy continues or not

Also able to refer women with early pregnancy ultrasound findings that need follow-up

ANTENATAL SCREENING TESTS

Provide an estimate of increased risk of the baby having structural, genetic and chromosomal abnormalities and other health problems.

They are non-invasive and are generally considered very safe.

They are not diagnostic for chromosomal and genetic anomalies but are diagnostic for some structural anomalies like anencephaly.

They should be offered as a choice to ALL women.

Include:

- Combined First Trimester Screening
- Non Invasive Prenatal Test AND a fetal structural scan
- Second Trimester Screening

It is important that the NIPT is done with a fetal structural scan – as it does not diagnose organ or spinal malformations

ANTENATAL DIAGNOSTIC TESTS

Provide a more accurate indication of genetic and chromosomal issues as they entail more invasive, direct sampling procedures but are associated with a small risk of miscarriage.

They should not be considered routine but rather offered as a choice to women.

Include:

- CVS (Chorionic Villus Sampling)
- Amniocentesis
- Ultrasound Structural Scans
  - not strictly diagnostic but suggest abnormalities
  - apart from certain things such as spina bifida, anencephaly

PRIMARY HEALTH NETWORK

HealthPathways
Central Coast NSW

patient info CENTRAL COAST

NSW GOVERNMENT Health
Central Coast
Local Health District

Central Coast HealthPathways Pregnancy Pathways

HNECCPHN.COM.AU

Healthy People, Healthy Communities

PRIMARY HEALTH NETWORK

HealthPathways
Central Coast NSW

https://centralcoast.communityhealthpathways.org/
Username: centralcoast
Password: 1connect
For health professionals

patient info CENTRAL COAST

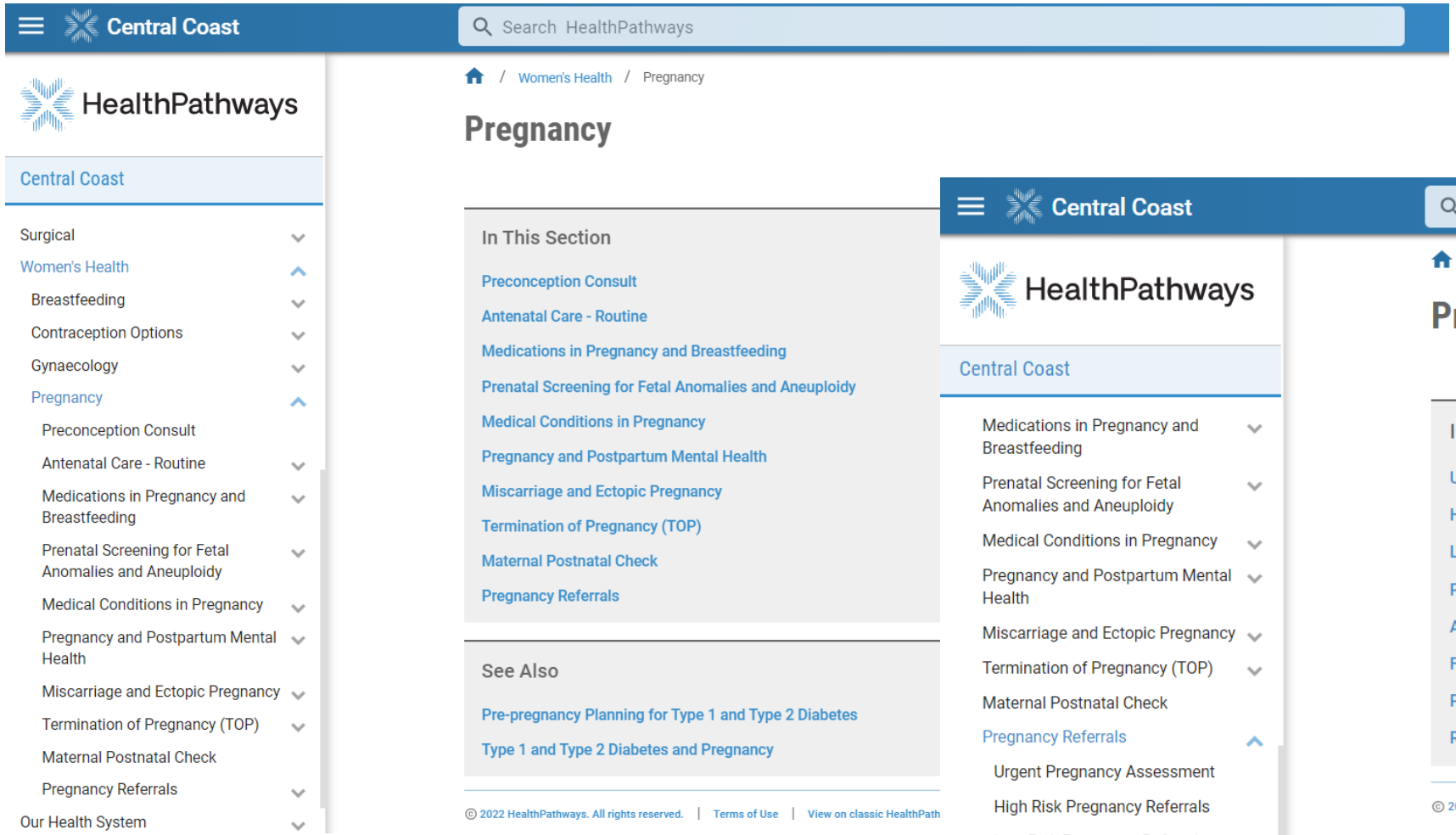
https://www.ccpatientinfo.org.au/
For patients and the general community
No password required

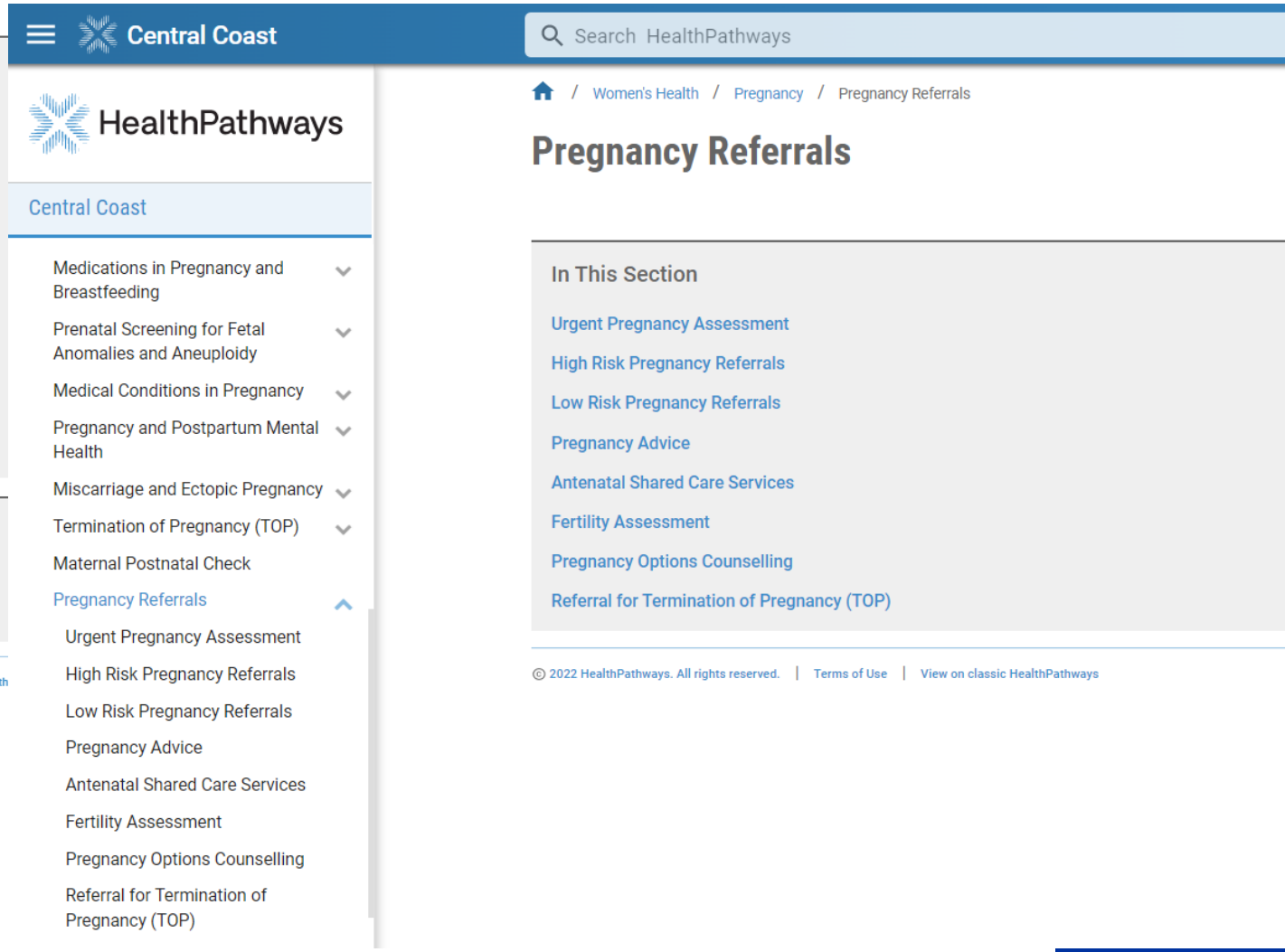
Pregnancy Pathways

- Central Coast HealthPathways website – https://centralcoast.communityhealthpathways.org/
  Username: centralcoast Password: 1connect

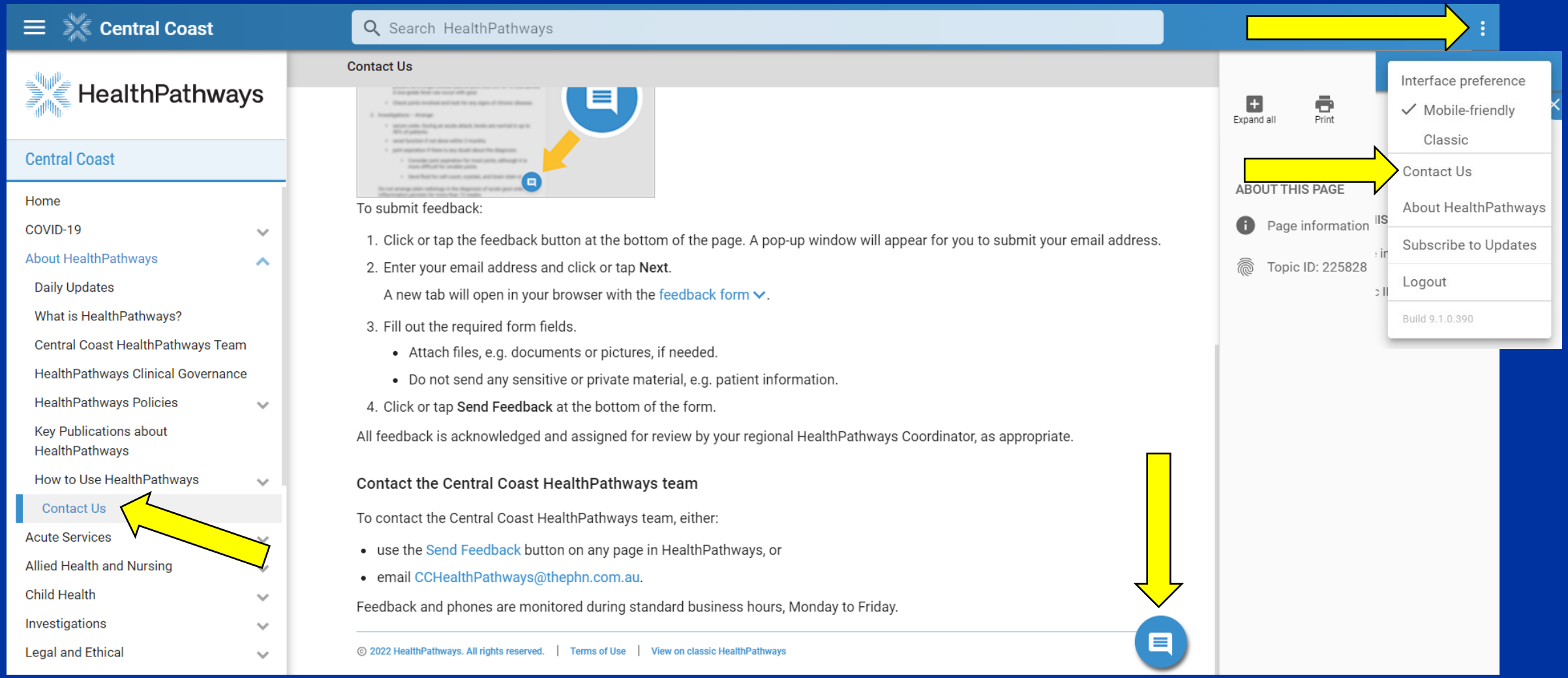
- Pregnancy suite of pathways
  - Nausea, Vomiting, and Hyperemesis in Pregnancy (recent full review and update)
  - Pregnancy Referrals section

Pregnancy Pathways





Contact Us – Central Coast HealthPathways



CCHealthPathways@thephn.com.au

PRIMARY HEALTH NETWORK

phn HUNTER NEW ENGLAND AND CENTRAL COAST
An Australian Government Initiative