

Medication Management In Pregnancy



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GP Obstetric Shared Care – Learning Outcomes

You will be able to:

Advise safe medication use in pregnancy and breast feeding
Through increased knowledge of resources available

WCH drug information line

Website resources:

- Medicines Information Service – The Royal Women’s Hospital
- TGA - Prescribing medication in pregnancy database
- PBS information
- AMH
- Mims
- DASSA etc.



How many women take Medication in pregnancy?

- A 20%**
- B Nil**
- C 90%**
- D 50%**



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Pregnancy - Pills and Potions!

Literature suggests 9 out of 10 pregnant women take some form of medication during pregnancy

- Planning for pregnancy - opportunistic education of those patients *'at risk of pregnancy'*
- 'Oops' pregnant and taking pills/potions - know where & how to check if medications are safe and what are the risks vs benefits
- Advise women to talk to their GP before starting/stopping any medicine - include OTC, herbal and natural, supplements and vitamins

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Most common drugs in pregnancy?

- Nicotine
- Alcohol
- Marijuana
- Cocaine



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Pregnancy

Low Iron – What Next?

- Dietary Intake
- Iron Supplements
 - Oral and liquid iron e.g. Ferrograd ©, Maltofer...
 - *Absorption effects by dairy, caffeine
- Iron Infusion
 - When - >36 weeks
 - Where - **Always** hospital **NOT GP Rooms**



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Almost all women face making a decision about taking some type of medicine or vaccination in pregnancy

However, there is not a lot known because pregnant women are not often included in clinical studies

There are many variables:

- stage of pregnancy
- crossing the placenta
- dosage
- route etc.

Includes OTC/herbal and prescription - (illicit/recreational)

The Australian Categorisation System For Prescribing Medicines in Pregnancy

What does the Australian categorisation system take into account?

Most medicines cross the placenta. The categorisation system has taken into account the known harmful effects of medicines on the developing baby, including the potential to cause:

- birth defects
- unwanted pharmacological effects around the time of birth, which may or may not be reversible
- problems in later life
- the categorisation system does not take into account the rare circumstance of an idiosyncratic reaction in the neonate to a medicine that crosses the placenta

The Australian categorisation system is not hierarchical

- The Australian categorisation system of medicines for use in pregnancy differs from the US FDA categorisation as it does not follow a hierarchical structure
- Human data is lacking or inadequate for drugs in the B1, B2 and B3 categories
- Sub-categorisation of the B category is based on animal data
- The allocation of a B category does **not** imply greater safety than a C category
- Medicines in category D are not absolutely contraindicated during pregnancy (e.g. anticonvulsants)
- Due to legal considerations in Australia, sponsor companies have, in some cases, applied a more restrictive category than can be justified on the basis of the available data
- For pharmaceutical products containing two or more active ingredients, the categorisation of the combination is based on the active ingredient with the most restrictive pregnancy categorisation

Why do some products have more than one pregnancy category?

- While some medicines are genuinely teratogenic, & carry a category X, for most medicines the risk of developing birth defects is also dependent on:
 - Systemic exposure of the mother
 - Exposure of the fetus, which may be affected by:
 - Dose
 - Route of administration
 - Dosing regimen
- Thus, a low dose, limited topical application of a medicine for a particular indication may have a less restrictive category (such as A) compared to a more restrictive category for the same medicine given long-term or at higher doses orally for a different indication

Definitions of the Australian categories for prescribing medicines in pregnancy: category A- X

Category A

- Drugs which have been taken by a large number of pregnant women and women of childbearing age without any proven increase in the frequency of malformations or other direct or indirect harmful effects on the fetus having been observed.

Category B1

- Drugs which have been taken by only a limited number of pregnant women and women of childbearing age, without an increase in the frequency of malformation or other direct or indirect harmful effects on the human fetus having been observed.
- Studies in animals have not shown evidence of an increased occurrence of fetal damage.

Category B2

- Drugs which have been taken by only a limited number of pregnant women and women of childbearing age, without an increase in the frequency of malformation or other direct or indirect harmful effects on the human fetus having been observed.
- Studies in animals are inadequate or may be lacking, but available data show no evidence of an increased occurrence of fetal damage.

Category B3

- Drugs which have been taken by only a limited number of pregnant women and women of childbearing age, without an increase in the frequency of malformation or other direct or indirect harmful effects on the human fetus having been observed.
- Animals studies have shown an increased occurrence of fetal damage, the significance of which is considered uncertain in humans.

Category C

- Drugs which, owing to their pharmacological effects, have caused or may be suspected of causing, harmful effects on the human fetus or neonate without causing malformations. These effects may be reversible. Accompanying texts should be consulted for further details.

Category D

- Drugs which have caused, are suspected to have caused or may be expected to cause, an increased incidence of human fetal malformations or irreversible damage. These drugs may also have adverse pharmacological effects. Additional texts should be consulted for further details.

Category X

- Drugs which have such a high risk of causing permanent damage to the fetus that they should not be used in pregnancy or when there is a possibility of pregnancy.

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Australian Government Department of Health Therapeutic Goods Administration

- **Website: [tga.gov.au](https://www.tga.gov.au)**

Prescribing medicines in pregnancy database

Database search

- Search by name
- Search by classification

Add link: <https://www.tga.gov.au/prescribing-medicines-pregnancy-database#classification>

Search by name

- Type the generic name/active ingredient of the medicine (or part of the name). The medicine will appear, with its classification and Pregnancy Category.
- Click on the medicine to obtain the description of the category, and safety statements when applicable. For combination products, search the medicines individually.

Search by active ingredient/generic name of a medicine

warfarin

Submit

Display All

Reset Search

Search by classification level [🔗](#)

- To select medicines by their pharmacological group or pharmacological action, select a classification level from the drop-down list.
- To view all medicines, click on Display All.
- Click on the medicine to obtain the description of the category, and safety statements when applicable. For combination products, search the medicines individually.

Medicine Classification	
Level 1	<input type="text" value="All"/>
Level 2	<input type="text" value="All"/>
Level 3	<input type="text" value="All"/>

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Asthma

**Asthma control important to
the well being of baby**

- Treatment as per non-pregnant state
- Reliever and Preventor including inhaled corticosteroids



Depression

- Antidepressant use in pregnancy is well studied, but available research has not yet adequately controlled for other factors that may influence birth outcomes including maternal illness or problematic health behaviours that can adversely affect pregnancy.
- Depressive symptoms & antidepressant exposure are associated with fetal growth changes and shorter gestation-but studies unable to control for effects of depressive disorder
- Short term neonatal irritability & neuro-behavioural changes also linked with depression and antidepressant treatment

- Outcome - informed consent but happy Mum makes for happier and healthier baby

Recommend: SSRIs (most data) others no stat diff of congenital abnormality cf controls
Venlafaxine (Effexor) Bupropion (Zyban) Duloxetine (Cymbalta)



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URTIs

- Viral: symptomatic - treatment

Covid-19

- Consider disease modifying treatments
 - Remdesivir

• Cough

- If must then Pholcodine or Dextromethorphan (best to treat the post nasal drip)

• Nasal symptoms

- Steam inhalations
- Saline nasal drops
- Avoid oral decongestants such as Pseudoephedrine



Pregnant Women

Immunosuppressed regardless of vaccination status
OR
 Unvaccinated or partially vaccinated (Box 1) with risk factor/s for progressing to severe illness (Box 2)
All patients must be ≤ 7 days since symptom onset



First, Second OR Third Trimester: Remdesivir + VTE Prophylaxis#

Discuss with ID if patient is ineligible or declines remdesivir therapy (see note 2)

#VTE Prophylaxis: Should also be considered for pregnant women with mild disease with any of the following risk factors for VTE: prior VTE, age >35 years, BMI > 40 or BMI > 30 with another risk factor for VTE, blood dyscrasias or smoker. **CrCl > 30mL/min:** enoxaparin 40mg subcutaneous injection daily **CrCl < 30mL/min:** enoxaparin 20mg subcutaneous injection daily

Box 1: Definition of not up to date vaccine status: single dose vaccination **OR** less than 2 weeks or ≥ 3 months since second vaccination (regardless of initial vaccination type) **OR** less than 7 days since any booster vaccination. Refer to ATAGI for more information on [booster doses](#) and definition of [up to date vaccine status](#).

Box 3: Dosing Recommendations for Disease-Modifying Treatments of COVID-19

Remdesivir: 200mg IV infusion loading dose day 1 then 100mg IV daily on day 2 and 3. Total 3 day course.
If eGFR < 30mL/min and/or on dialysis– discuss with ID or clinical pharmacy

Note 1: Studies have demonstrated that the risk of severe COVID-19 increases with age and number of comorbidities. Supplies of medications from the National Medical Stockpile (NMS) can vary according to outbreaks and demand and in the setting of limited supply certain risk factors or patients with greater than one risk factor may be prioritised for treatment of mild disease

Note 2: There is limited evidence for disease modifying therapies in pregnant and breastfeeding women and the decision to treat should be based on risk factors for progressing to severe illness (as listed in Box 2) taking into account the harm benefit ratio for both mother and fetus. Seek advice from ID.

Box 2: Risk factors for progressing to severe illness

- Age ≥ 65 years or age ≥ 50 years if Aboriginal/Torres Strait Islander
- Chronic kidney disease (eGFR < 60mL/min or equivalent renal impairment for pregnant women)
- Congenital heart disease
- Diabetes (requiring medications) or gestational diabetes (requiring medication)
- Obesity (BMI > 40 kg/m²)
- Chronic liver disease (cirrhosis)
- Cardiovascular disease
- Congenital heart disease
- Congestive Heart Failure (New York Heart Association Class II or above)
- Chronic lung disease including history of chronic bronchitis, cystic fibrosis, bronchiectasis, chronic obstructive pulmonary disease, or emphysema with dyspnoea on physical exertion
- Moderate-to-severe asthma requiring an inhaled steroid to control symptoms or prescribed a course of oral steroids in the previous 12 months
- Sickle cell disease
- Down's syndrome
- Rare neurological conditions e.g. multiple sclerosis, motor neurone disease, myasthenia gravis, Huntington's disease

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Pregnancy Planning and COVID-19 Disease Modifying Treatment

Oral Antivirals - Molnupiravir & Paxlovid

- Not for use in Pregnancy or Breast Feeding

Molnupiravir

- B/F - not for duration of course (4 Days) and further 4 days
- Contraception for same period in women of childbearing potential (8 days total)

Males who are sexually active with partner of child bearing potential
contraception 3 months

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- **Hypertension**

- Methydompa
- Nifedipine

- **Epilepsy**

- Specialist input
- Safe medications
- Seizure control



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Thyroid

Hypothyroidism

- Requirements for thyroxine can increase in pregnancy so need to monitor 6 weekly (at least each trimester) and adjust



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Nausea and Vomiting in Pregnancy

- Ginger, B12 etc
- Maxolon
- Ondansetron



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Pain in Pregnancy

- Paracetamol
- NSAID
 - avoid especially after 30 weeks
- Codeine
 - caution



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Allergies and Hay-fever

Antihistamines

- More known about sedating effect e.g. Chlorpheniramine, Doxylamine, Promethazine etc.
- Less-sedating e.g. Loratadine maybe used at recommended dose and short duration



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Constipation

Fibre

- Osmotic laxative e.g. Lactulose or softener
- Bulking e.g. bran
- Senna
 - avoid prolonged use - lazy bowel

Haemorrhoids

- Anorectal products as ointment/supp are safe

Vaginal Thrush

- Topical antifungals – creams/ pessaries (Clotrimazole and Nystatin)
- Single dose Fluconazole not recommended



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Reflux

- Rennie's
- Mylanta
- Gaviscon
- Omeprazole



Recommended Routine Supplements

Folic Acid: 500 µg/day from at least one month prior to conception* until 12 weeks

5mg if at increased risk of neural tube defect: taking certain antiepileptic medications, diabetic, family history NTD, multiple pregnancy, BMI > 30

Vitamin D: 400iu daily

Iodine: 150µg/day should be taken during pregnancy and for the duration of breastfeeding

Pre-eclampsia risk: Aspirin 100mgs and calcium 1200mgs at booking and always before 12 weeks if possible

Omega-3 fatty acids (Linoleic Acid)

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Recommended immunisations during pregnancy

- **Influenza vaccine:**
 - Recommended at any stage in pregnancy
 - Government subsidised
- **Pertussis vaccine:**
 - Only available in polyvalent form (dTpa)
 - From 20 weeks – Vaccinate by 32 weeks
 - Government subsidised (Adacel)

Pregnancy and COVID-19 vaccination

FREQUENTLY ASKED QUESTIONS



Why should pregnant women get the COVID-19 vaccine?

If you are pregnant and get sick with COVID-19, you are at a much higher risk of needing to go to hospital or needing a machine to help you breathe. Your unborn baby is at a higher risk of being born early (before 37 weeks) or needing to go to hospital.

Vaccination against COVID-19 is the best way to reduce these risks to you and your baby.



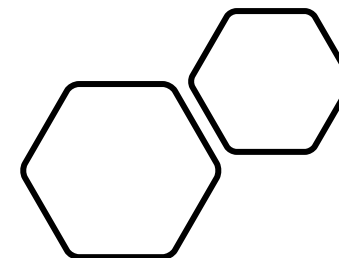
When should pregnant women get the COVID-19 vaccine?

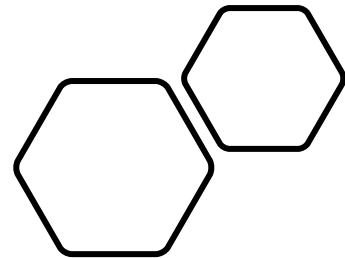
The best time to get the COVID-19 vaccine if you're pregnant is **right now**. Pregnant women have a higher risk of severe illness from COVID-19. **You can get the vaccine at any time during your pregnancy.**



What about the possible side effects from COVID-19 vaccines?

The common and mild side effects from COVID-19 vaccinations **do not** put your baby or your pregnancy at risk.





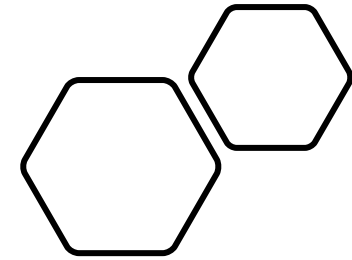


The 2023 **flu vaccine**
is now available



RACGP
Royal Australian College of General Practitioners

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Thank you

