Participant Eligibility Criteria

Please complete the survey below.

Thank you!

Are you currently working as a GP or GP registrar in Australia?	◯ Yes ◯ No

Thank you for your interest in participating in this study, but your response indicates that you are not eligible to participate in this study. Please feel free to contact our study team at ese-cmv@unimelb.edu.au if you have any questions.

In the last five years have you provided care for pregnant patients?	◯ Yes ◯ No

Thank you for your interest in participating in this study, but your response indicates that you are not eligible to participate in this study. Please feel free to contact our study team at ese-cmv@unimelb.edu.au if you have any questions.

Which of the following best describes your Fellowship status?	◯ Specialist GP ◯ GP registrar in accredited program ◯ Non-vocationally registered GP ◯ Other _____
Which of the following best describes your work?	◯ GP who provides shared maternity care ◯ GP who provides intrapartum care ◯ GP who does not provide shared maternity care ◯ None of the above

Participant Eligibility Criteria

Please complete the survey below.

Thank you!

What is the postcode of your main place of work?	_____
What type of practice do you work in?	◯ Hospital based antenatal clinic ◯ General practice ◯ Other _____
How long have you been practicing as a GP?	◯ I am a GP registrar ◯ Less than 5 years ◯ 5-9 years ◯ 10-14 years ◯ 15 years or more
Have you previously participated in continuing medical education on congenital CMV?	◯ Yes ◯ No
If "Yes", please select all that apply	☐ Webinar ☐ In-service/ education arranged by my workplace ☐ eLearning course ☐ Conference session ☐ Reading ☐ Peer or small group discussions ☐ Other _____

Survey

BACKGROUND INFORMATION

About cytomegalovirus (CMV)

CMV is the most common congenital infection resulting in childhood disability in Australia, with an estimated 250 babies affected each year. It is the leading cause of sensorineural hearing loss and a known cause of cerebral palsy, intellectual impairment and epilepsy.

Congenital CMV can occur when a pregnant person is infected with CMV during pregnancy. In Australia about 40% of pregnant patients have not had CMV infection before their pregnancy, with no CMV IgG antibodies present at the onset of pregnancy ('seronegative'). If seronegative women are infected with CMV during pregnancy, the risk of infection of the fetus is about 40%. CMV infection in someone who has never had CMV before is called primary CMV infection.

CMV screening

We want to hear your views on performing routine antenatal CMV screening in light of possible future changes to Australian guidelines.

Current guidelines on CMV screening

Current Australian guidelines on congenital CMV focus on primary prevention, providing information on practices to reduce the risk of acquiring CMV during pregnancy.

Routine serological testing for CMV in pregnancy is not currently recommended.

Why is there new interest in routine CMV screening in pregnancy?

There is now evidence of an effective treatment to reduce fetal infection after a maternal infection. Studies have shown that for women with a first trimester primary CMV infection valaciclovir can reduce the risk of fetal infection and subsequent complications by approximately 70%. As a result, routine serological screening in first trimester is being recommended by a European consensus group.

What would routine CMV screening in pregnancy involve?

Routine screening would involve ordering CMV IgG with the initial antenatal blood tests.

If the patient is CMV IgG positive (~60% of the Australian population) no further testing would be required.

If the patient is CMV IgG negative, and therefore at risk of a primary CMV infection, they would get another blood test for CMV IgM and IgG at 12-13 weeks gestation. If the follow up blood test result was CMV IgG positive (ie a change from CMV IgG negative to positive), and/ or CMV IgM positive (indicating recent infection), the patient would need to be referred urgently to a maternal fetal medicine or infectious diseases specialist, to enable commencement of antiviral treatment by the non-GP specialist by 14 weeks gestation. Click here to view a proposed algorithm for CMV screening in general practice.

We are interested in your current practice and perspectives on CMV screening. The following questions should take about 10 minutes of your time. You can save your response and return to your survey later if you wish.

CMV Prevention Advice

1) Do you currently routinely counsel all pregnant patients/those planning a pregnancy on CMV risk reduction strategies?

- ◯ Yes - I counsel ALL patients who are pregnant / planning pregnancy.
- ◯ Yes - I counsel SOME patients who are pregnant / planning pregnancy e.g. those at increased risk.
- ◯ No - I don't counsel about CMV.

2) How do you provide CMV prevention information to your patients? (Select all that apply)

- ☐ Verbally
- ☐ Hard copy patient information sheet sourced externally to my practice
- ☐ Hard copy patient information sheet developed by me/ my practice
- ☐ Link to digital or online written patient information
- ☐ Link to video
- ☐ Hard copy information in waiting room (posters, handouts)
- ☐ Other (please specify) _____

2a) Do you have access to appropriate CMV prevention information in languages other than English?

- ◯ Yes
- ◯ No
- ◯ Not Applicable

If yes, where do you get this information

_____

If no, which languages do you need?

_____

2b) Do you have access to appropriate CMV prevention information for patients with low health literacy?

- ◯ Yes
- ◯ No
- ◯ Not applicable

If yes, where do you get this information?

_____

2) Why don't you provide this advice to your patients? (select all that apply)

- ☐ I do not think this advice is important
- ☐ I do not feel confident about providing CMV education
- ☐ I do not have time to provide this advice
- ☐ I was not aware that this was recommended practice
- ☐ Other (please specify) _____

3) How do you decide when to discuss CMV prevention practices? (select all that apply)

- ☐ I only discuss with women having their first baby
- ☐ I only discuss CMV if the woman has risk factors, eg has regular contact with young children, or is known to be CMV negative
- ☐ I do it only if I have enough time during the consultation
- ☐ I consider individual patient characteristics (eg anxiety, language barriers etc) and whether the information would be wanted and understood
- ☐ Other (please specify) _____

ROUTINE SEROLOGICAL SCREENING FOR CMV INFECTION

For the following statements, please indicate your level of agreement / disagreement.

With regard to routine bloods at the first antenatal visit, (select one answer)

- ◯ I routinely order CMV serology in all pregnant patients
- ◯ I order CMV serology on selected pregnant patients
- ◯ I never perform CMV serology on pregnant patients

I order CMV serology for patients (select all that apply)

- ☐ At high risk of exposure
- ☐ Who request it

When screening asymptomatic patients, I request (select one answer)

- ◯ CMV serology
- ◯ CMV IgG only
- ◯ CMV IgG and IgM
- ◯ CMV IgM only
- ◯ Other _____

1) I would support routine antenatal CMV screening if this was recommended by my local health service or other health authority

◯ Strongly agree ◯ Agree ◯ Neutral ◯ Disagree ◯ Strongly disagree

Can you please explain the reason(s) for your response: (select all that apply)

- ☐ It will help me target my CMV prevention education to those at risk of primary infection.
- ☐ I believe that patients would want to know this information.
- ☐ I believe CMV screening in pregnancy is important.
- ☐ It will help me to determine the need to test for CMV if my patient becomes unwell with a CMV-like illness during pregnancy.
- ☐ Other _____

Could you please explain the reason(s) for your response: (select all that apply)

- ☐ I don't see women early enough in pregnancy to arrange the testing
- ☐ I don't have time to add more into my antenatal consultations
- ☐ I don't believe screening for CMV in pregnancy is important
- ☐ I don't want to make my patients anxious by discussing CMV
- ☐ Other (please specify) _____

2) It would be easy for me to incorporate CMV IgG testing into a patient's first antenatal visit

◯ Strongly agree ◯ Agree ◯ Neutral ◯ Disagree ◯ Strongly disagree

Could you please explain the reason(s) for your response? (select all that apply)

- ☐ I don't see patients early enough in pregnancy to arrange this testing
- ☐ I don't have time to add more into my initial antenatal consult
- ☐ I am concerned that my patients will have received too much health information and will experience "information overload"
- ☐ I am concerned that my patients will become anxious if I tell them about CMV
- ☐ I think patients will be concerned by the extra time and potential costs associated with screening and follow up
- ☐ I don't have any CMV resources to give my patients
- ☐ I don't feel well informed about CMV
- ☐ Other (please specify) _____

3) I would feel confident providing pre-test information to patients regarding CMV screening in pregnancy

◯ Strongly agree ◯ Agree ◯ Neutral ◯ Disagree ◯ Strongly disagree

Could you please explain the reason(s) for your response? (select all that apply)

- ☐ I feel well informed about CMV in pregnancy
- ☐ I know where to access information regarding CMV in pregnancy
- ☐ I have access to CMV resources to provide to my patients
- ☐ Other (please specify) _____

Could you please explain the reason(s) for your response? (select all that apply)

- ☐ I don't feel well informed about CMV in pregnancy
- ☐ I do not know where to access information regarding CMV in pregnancy
- ☐ I do not have access to CMV resources to provide to my patients
- ☐ I do not have access to appropriate CMV resources for my patients who do not speak English or who have low literacy
- ☐ Other (please specify) _____

4) I would feel confident providing post-test information to patients regarding CMV screening in pregnancy

◯ Strongly agree ◯ Agree ◯ Neutral ◯ Disagree ◯ Strongly disagree

Could you please explain the reason(s) for your response? (select all that apply)

- ☐ I feel well informed about CMV in pregnancy
- ☐ I feel confident interpreting CMV serology result
- ☐ I feel confident regarding the next steps after CMV screening
- ☐ I know where to access information regarding CMV in pregnancy
- ☐ I have access to CMV resources to provide to my patients
- ☐ Other (please specify) _____

Could you please explain the reason(s) for your response? (select all that apply)	☐ I do not feel well informed about CMV in pregnancy ☐ I do not feel confident interpreting CMV serology results ☐ I do not know where to access information regarding CMV in pregnancy ☐ I do not feel confident regarding the next steps after CMV screening ☐ I do not feel confident that I could easily obtain timely advice if my patient's CMV serology changes ☐ I do not feel confident that my patient will receive timely non-GP specialist review if their CMV serology changes ☐ I do not have access to CMV resources to provide to my patients ☐ Other (please specify) _____
5) What would assist you in feeling more confident providing patients with information regarding CMV screening? (select all that apply)	☐ More GP-specific education ☐ Guidelines from RANZCOG/ RACGP ☐ Clinical guidance included in HealthPathways ☐ Clinical guidance on the CMV serology report ☐ Patient information pamphlets ☐ Website or online videos for patients ☐ Patient information in languages other than English or appropriate for those with low literacy levels ☐ Clear dedicated timely referral pathways ☐ Other (please specify) _____

SEROLOGICAL SCREENING TO DETECT MATERNAL PRIMARY INFECTION IN FIRST TRIMESTER

Please answer the following questions about a proposed protocol for follow up serology at 12-13 weeks for CMV IgG negative pregnant women

1) I would find it easy in my practice to ensure that a patient with an CMV IgG negative result at the first antenatal visit would receive a follow up serology test at 12-13 weeks of pregnancy:

◯ Strongly agree ◯ Agree ◯ Neutral ◯ Disagree ◯ Strongly disagree

2) I have systems in place in my practice to ensure that a patient with an initial CMV IgG negative result would receive appropriate follow up serology at 12-13 weeks of pregnancy

◯ Strongly agree ◯ Agree ◯ Neutral ◯ Disagree ◯ Strongly disagree

What method(s) would you use to ensure that your patients with a negative CMV IgG result at their first antenatal visit have a repeat test at 12 weeks gestation? (select all that apply)

- ☐ Recall/ reminder in practice software
- ☐ Practice nursing staff assistance
- ☐ Providing the patient with a repeat pathology form at the initial visit and getting them to put a reminder in their phone
- ☐ Booking the patient in for a review appointment
- ☐ Other (please specify) _____

Could you please explain the reason(s) for your response? (select all that apply)

- ☐ Our practice software does not support automated patient recalls/ reminders
- ☐ We are a paper-based practice with no automated recall/ reminder systems
- ☐ There is no way in our practice software to flag that the patient is pregnant when I am checking her results
- ☐ It would be difficult to remember to set a recall/ reminder when checking patient results
- ☐ Our practice does not have a standard way of notifying patients of their results
- ☐ Our nurses/ reception staff notify patients of their results and would need training
- ☐ We do not have a practice nurse
- ☐ We would need whole practice training for when other doctors check my results (eg when I am on leave)
- ☐ Unsure/don't know what is available in my practice yet
- ☐ Other (please specify) _____

RETURNING CMV SEROLOGY RESULTS TO PATIENTS

1) If my seronegative patient subsequently tested positive for CMV IgG at their 12 week follow up test, I would feel confident discussing the result to them:

◯ Strongly agree ◯ Agree ◯ Neutral ◯ Disagree ◯ Strongly disagree

2) Are there patient information resources on CMV that you would use when disclosing the result to your patient?

◯ Yes
◯ No

Please share examples of CMV resources that you use while disclosing result to your patien? _____

3) If my patient tested positive for CMV IgG at their follow up test, I would feel confident that I know where to refer them:

◯ Strongly agree ◯ Agree ◯ Neutral ◯ Disagree ◯ Strongly disagree

Could you please explain the reason(s) for your response?

4) If my patient tested positive for CMV IgG at their follow up test, I would feel confident that my referral to a tertiary hospital would be accepted:

◯ Strongly agree ◯ Agree ◯ Neutral ◯ Disagree ◯ Strongly disagree

Could you please explain the reason(s) for your response?

5) What would assist you to feel confident managing the clinical referral for someone with evidence of CMV infection in first trimester?

☐ More GP-specific education
☐ Specific advice in HealthPathways
☐ Clear guidance from my tertiary referral centres
☐ Easy way to refer to tertiary referral centres
☐ Better communication about a patient's care from tertiary referral centre
☐ Ability to have asynchronous clinical advice (eg via email) from tertiary referral centre
☐ Ability to call someone for advice from tertiary referral centre
☐ Patient able to pay to see a non-GP specialist privately
☐ Other (please specify) _____

6) Based on your prior experience, are you confident that your current tertiary maternity service would facilitate appropriate specialist review within 10 days of referral (face to face or via telehealth)?

◯ Strongly agree ◯ Agree ◯ Neutral ◯ Disagree ◯ Strongly disagree

Could you please explain the reason(s) for response? (select all that apply)

- ☐ My local tertiary maternity hospital is very slow at processing referrals
- ☐ I do not receive acknowledgement of receipt of my referrals to my local tertiary maternity hospital
- ☐ Faxed referrals are often not received
- ☐ The referral details (eg fax number/ email address) to my local tertiary maternity hospital keep changing
- ☐ Other (please specify) _____