



Contents lists available at ScienceDirect

## Women and Birth

journal homepage: [www.elsevier.com/locate/wombi](http://www.elsevier.com/locate/wombi)



### Discussions

## Pregnancy after loss during the COVID19 pandemic

D. Pollock<sup>a,\*</sup>, M. Murphy<sup>b</sup>, J. O'Leary<sup>c</sup>, J. Warland<sup>d</sup>

<sup>a</sup>JBI, School of Public Health, Faculty of Health and Medical Science, University of Adelaide, Adelaide, South Australia, Australia

<sup>b</sup>School of Nursing and Midwifery, University College Cork, Ireland

<sup>c</sup>Stars Legacy Foundation, Minneapolis, Minnesota, United States

<sup>d</sup>UniSA Clinical and Health Sciences, University of South Australia, Adelaide, South Australia, Australia

#### ARTICLE INFO

##### Article history:

Received 2 July 2020

Received in revised form 30 July 2020

Accepted 30 July 2020

Available online xxx

##### Keywords:

COVID19

Pregnancy after loss

Stillbirth

Bereavement care

Maternity care

#### ABSTRACT

**Background:** Rapid changes to how maternity health care is delivered has occurred in many countries across the globe in response to the COVID-19 pandemic. Maternity care provisions have been challenged attempting to balance the needs and safety of pregnant women and their care providers. Women experiencing a pregnancy after loss (PAL) during these times face particularly difficult circumstances. **Aim:** In this paper we highlight the situation in three high income countries (Australia, Ireland and USA) and point to the need to remember the unique and challenging circumstances of these PAL families. We suggest new practices may be deviating from established evidence-based guidelines and outline the potential ramifications of these changes.

**Findings:** Recommendations for health care providers are suggested to bridge the gap between the necessary safety requirements due to the pandemic, the role of the health care provider, and the needs of families experiencing a pregnancy after loss.

**Discussion:** Changes to practices i.e. limiting the number of antenatal appointments and access to a support person may have detrimental effects on both mother, baby, and their family. However, new guidelines in maternity care practices developed to account for the pandemic have not necessarily considered women experiencing pregnancy after loss.

**Conclusion:** Bereaved mothers and their families experiencing a pregnancy after loss should continue to be supported during the COVID-19 pandemic to limit unintended consequences.

© 2020 Australian College of Midwives. Published by Elsevier Ltd. All rights reserved.

#### Statement of significance

##### Problem or issue

COVID-19 has changed the practice of maternity care provision across the globe. Women and their families experiencing a pregnancy after loss may not be receiving the care, they need.

##### What is already known

Families experiencing pregnancy after loss require holistic care that considers both their physical and psychosocial needs.

##### What this paper adds

Whether or not there is a pandemic, consideration needs to be given to the unique circumstances of women and their families experiencing a pregnancy after loss.

Recommendations to consider when caring for these families are discussed.

#### Introduction

Risks of contracting COVID-19 presents a unique challenge in providing maternity care. As a result, established maternity care practices have been adapted to address this rapidly changing crisis and to ensure the wellbeing and personal safety of practitioners as well as pregnant women and their families. Changes in practices, such as reducing the number of scheduled antenatal care appointments, moving from in-person to a telehealth format, not allowing a support person to attend routine antenatal appointments, including the 20-week scan and minimising support people in labour may be more detrimental to women and their families experiencing a pregnancy after loss (PAL) [1–3]. These practice changes are being made with a crisis management mindset. The COVID-19 pandemic is complex. Risk mitigation strategies need to

\* Corresponding author at: JBI, School of Public Health, Faculty of Health and Medical Science, University of Adelaide, 55 King William Road, North Adelaide, 5006, Australia.

E-mail address: [Danielle.Pollock@Adelaide.edu.au](mailto:Danielle.Pollock@Adelaide.edu.au) (D. Pollock).  
[@Daniellep89](https://twitter.com/Daniellep89) (D. Pollock)

consider the health and wellbeing of not only the mother and baby, but support people, care providers and the unprecedented demand upon health services.

Current evidence, albeit changing and correlational in nature, suggests that a pregnant woman or baby are at no more at risk of contracting COVID-19 than any other member of the community, and that even if she was to contract it, the woman and her baby would be no more at risk of complications [4,5]. Furthermore, the risk of vertical transmission between the mother and baby is thought to be small [6,7]. However, concerns about risk of transmission is not just regarding the pregnant woman, but also includes fears that the maternity health care provider may be exposed to multiple women and their partners during their daily practice. Maternity care providers' physical and psychosocial health during this crisis also need to be at the forefront of any clinical recommendations [8]. Maternity care providers are a diverse workforce, which includes those at risk of increased severity of complications from COVID-19, i.e. the older practitioner or those with comorbidities [8]. Hence, maternity care providers' psychosocial wellbeing and physical protection needs to also be considered alongside how to support pregnant women and their families.

*Acknowledging the increased needs for women and families experiencing pregnancy after loss*

There are 2.6 million stillbirths globally every year [9]. Approximately 66% of women will go on to have a subsequent pregnancy within 12 months of their loss [10]. The greatest risk factor for stillbirth is a history of a prior stillbirth [11,12]. Families experiencing PAL have additional physical and psychological needs [10], such as gestational diabetes, preterm birth, and fetal growth restriction [13], depression and anxiety [14]. However with appropriate care these risks can be reduced or even mitigated [15,16]. Therefore, the health care provider has an important role to develop a care plan which is sensitive and individualised and designed in collaboration with bereaved parents [10,15,17]. Furthermore, a support person plays an important role during PAL [16]. To preclude the partner's support in times of likely increased anxiety, such as during an ultrasound, raises concern for ongoing negative psychological sequelae not just for the pregnant woman, but for her partner as a result of experiences from the prior stillbirth [18,19]. The COVID-19 pandemic has meant many new guidelines for antenatal care provision which have been implemented may have inadvertently diminished their importance.

**Table 1**  
Evidence-based guidelines, what should be maintained and the reality of Covid-19.

Society of Obstetricians and Gynaecologists of Canada Consensus Statement Summary (Ladhani et al. [17])	Evidence based-guidance that should be maintained during COVID-19	Current reality in many high-income countries across the world
Previous stillbirth is a known risk factor for current stillbirth (GRADE: high)	Women with this history need to be considered high risk and managed as such.	Reduced number of face-to-face antenatal consultations is being recommended by most professional bodies (e.g. [1–3]).
Women with a history of stillbirth are at higher risk of other adverse pregnancy outcomes, such as preterm birth, low birth weight, and placental abruption (GRADE: moderate).	Women with this history need to be considered as having these risk factors and managed as such.	This may be challenging in the context of reduced face-to-face consults. For example, recent research suggests predisposing risk factors to stillbirth such as hypertension may be being missed [22]
Low-dose aspirin may reduce the risk of perinatal death in women at risk for placental insufficiency. Women with a history of stillbirth may fall into this category (GRADE: high).	Women should be aware they are able to access low-dose aspirin either online or contactless pick-up	Decisions on thromboprophylaxis should be made on a case-by-case basis, involving senior obstetricians, physicians and radiologists [20].
Women with a history of stillbirth may be at risk for fetal growth restriction in the subsequent pregnancy and may benefit from serial growth ultrasound (GRADE: high)	Serial ultrasound should be offered	With telehealth many women may not be having as many physical checks as they want or need. For example, no blood pressure taken at telehealth visits. [21]
While there is limited evidence supporting routine biophysical profile studies, some women and their families may benefit from increased surveillance, while others will find the increased monitoring to contribute to their anxiety (GRADE: moderate)	Women and her partner should be included in the rate of surveillance decisions with their care provider.	In certain locations, no support person is being allowed into antenatal care and sonography appointments. [20,21]
Decisions around timing of birth should incorporate the circumstances surrounding the previous stillbirth and psychosocial family needs.(GRADE: moderate).	Planned early birth not recommended.	Most professional guidelines consider Covid-19 is not an indication to expedite birth (e.g. [1–3]). Timing of birth conversations can still occur based on the woman's history for reassurance.
Families are uniquely impacted by prior stillbirth and current pregnancy management systems and processes should strive to adequately address these needs (GRADE: high).	A high level of psychosocial support should be maintained.	Telehealth is being offered to address this need. [1–3]
Adequate care provision includes consistent and timely medical and psychosocial care, services, and support by skilled and familiar care teams knowledgeable about the pervasive impact of stillbirth on the subsequent pregnancy and beyond. All care for families with prior stillbirth should be focused on protecting and promoting the health of the woman and her family, as well as informed choice (GRADE: high)	Vital to protect, promote and maintain the psychological health of woman and her family at this time	Unknown
Peer support is often beneficial for parents in pregnancies after stillbirth. Care providers should discuss and promote peer support options (GRADE: moderate).	Vital due to increased care providers and maternal anxiety about Covid-19.	Where face-to-face peer support is not possible there are a variety of online peer support options.
Women and families with prior stillbirth are very likely to need emotional support, and the entire family should be provided with opportunities for support during pregnancy and postpartum. Care providers should promote family strengths and provide psychosocial screening, targeted follow-up, referrals, and treatment as appropriate (GRADE: high)	Care providers should promote family strengths and provide psychosocial screening, targeted follow-up, referrals, and treatment as appropriate	Unknown

**Table 2**

Recommendations for PAL care during COVID-19.

- 1 Antenatal care guidelines developed for general low-risk population use during Covid-19 should be regularly reviewed with consideration given to their implications to PAL families.
- 2 Appointments with psychological services should remain open and available in an appropriate format.
- 3 Ensuring mothers experiencing PAL can include their support person during antenatal appointments, if not in person then at least through telephone/ or facetime.
- 4 Where the partner is not allowed to attend scanning facilities recognise the importance of scans as a vehicle for attachment and provide a disk/USB of the recording to be shared with the support person and family to connect with the unborn baby.
- 5 Health care providers encourage PAL women and families to access local peer-support support.

Currently, there are no specific guidelines nor evidence which provides evidence-based guidance for PAL and COVID-19. This means, women with PAL should continue to be managed as an at-risk group and in keeping with international consensus guidelines developed to guide practice in subsequent pregnancy [15,17]. However, anecdotes from across the globe suggest that current provision of care during COVID-19, may not necessarily be meeting those additional care needs for a woman and baby experiencing a pregnancy after loss and these may in turn lead to unintended consequences or indirect costs of COVID-19.

*The unintended consequences and indirect costs of COVID-19: what we are hearing, seeing and concerns for the future*

Evidence-based practices which generally recommend increased surveillance during PAL may not be adhered to during the COVID pandemic. This potentially carries the risk of unintended consequences such as subsequent stillbirth. Conversely practices may be implemented that are not based on evidence and may lack specificity or the understanding for the unique position facing women experiencing PAL. The Society of Obstetricians and Gynaecologists of Canada [17] produced a consensus statement designed to guide clinical practice and the recommendations for pregnancy after loss, the principles that should remain during COVID-19. The current reality derived from what 'living guidelines' [20] are recommending, observations of current practices from the professional experience of the authors, as well as extrapolated from recent reports from non-PAL parents [21] and research reports [22] from high-income countries across the world are outlined in Table 1.

### Recommendations to support women and families in the time of COVID-19

New antenatal care guidelines have been widely enacted (e.g. [1–3]) that were derived in a crisis and are purpose specific. While some attempts have been made to create 'living' guidelines [20], at present these are mainly focused on care for pregnant women with confirmed or suspected COVID-19. Consensus and/or evidence-based guidelines developed prior to COVID-19 and based on high grade evidence should be re-implemented as soon as it is deemed safe to do so. Recommendations made in Table 2 are to highlight strategies in which families experiencing PAL can continue to feel supported while also aiming to mitigate future indirect costs of COVID-19. These include the need for partner support, access to mental health services, and peer support.

### Conclusions

Maternity guidelines enacted for use in the Covid-19 pandemic have in the main superseded existing pregnancy care guidelines which were based on a weight of evidence, developed and refined

over many years. The short and long-term implications of these changes to standard maternity care provision remain to be seen. The psychological wellbeing of the woman and her family need to remain the utmost importance during PAL and the importance of a support person, peer support and access to mental health services needs to be highlighted. Families experiencing stillbirth today are likely to go on to have another pregnancy and therefore, reduction of services and care around stillbirth occurring today may well also have an impact well into the future.

### Funding

None.

### Ethical statement

No ethics were needed to be obtained for this discussion article as no recruitment was undertaken.

### Acknowledgement of Experience

Our group contains midwives (MM and JW), researchers (MM, JOL, DP and JW), and JOL is also a pregnancy after loss group facilitator with the US-based Star Legacy Foundation working directly with families. DP and JW have both experienced stillbirth and a pregnancy after loss prior to COVID-19.

### Acknowledgements

There was no financial assistance obtained for this commentary.

### References

- [1] The American College of Obstetricians and Gynaecologists (ACOG), Novel Coronavirus 2019 (COVID-19) Available from: (2020) . <https://www.acog.org/clinical/clinical-guidance/practice-advisory/articles/2020/03/novel-coronavirus-2019>.
- [2] Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG), Advice to Obstetricians and Gynaecologists, GP Obstetricians Available from: (2020) . <https://ranzcof.edu.au/news/advice-to-obstetricians-and-gynaecologists-gp-obs>.
- [3] Royal College of Obstetrics and Gynaecology (RCOG), Coronavirus (COVID-19) Infection in Pregnancy: Information for Healthcare Professionals Available from: (2020) . <https://www.rcog.org.uk/globalassets/documents/guidelines/2020-05-13-coronavirus-covid-19-infection-in-pregnancy.pdf>.
- [4] D.A. Schwartz, An analysis of 38 pregnant women with COVID-19, their newborn infants, and maternal-fetal transmission of SARS-CoV-2: maternal coronavirus infections and pregnancy outcomes, Arch. Pathol. Lab. Med. (2020), doi:<http://dx.doi.org/10.5858/arpa.2020-0901-SA> Epub 2020/03/18. PubMed PMID: 32180426.
- [5] M. Knight, K. Bunch, N. Vousden, E. Morris, N. Simpson, C. Gale, et al., Characteristics and outcomes of pregnant women hospitalised with confirmed SARS-CoV-2 infection in the UK: a national cohort study using the UK Obstetric Surveillance System (UKOSS), medRxiv (2020), doi:<http://dx.doi.org/10.1101/2020.05.08.20089268>.
- [6] H. Chen, J. Guo, C. Wang, F. Luo, X. Yu, W. Zhang, et al., Clinical characteristics and intrauterine vertical transmission potential of COVID-19 infection in nine pregnant women: a retrospective review of medical records, Lancet 395

- (10226) (2020) 809–815, doi:[http://dx.doi.org/10.1016/S0140-6736\(20\)30360-3](http://dx.doi.org/10.1016/S0140-6736(20)30360-3).
- [7] M. Zaigham, O. Andersson, Maternal and perinatal outcomes with COVID-19: a systematic review of 108 pregnancies, *Acta Obstet. Gynecol. Scand.* 99 (7) (2020) 823–829, doi:<http://dx.doi.org/10.1111/aogs.13867>.
- [8] A.N. Wilson, C. Ravaladi, M.J.L. Scoullar, J.P. Vogel, R.A. Szabo, J.R.W. Fisher, et al. Caring for the carers: ensuring the provision of quality maternity care during a global pandemic. *Women Birth.* doi: <https://doi.org/10.1016/j.wombi.2020.03.011>.
- [9] J.E. Lawn, H. Blencowe, P. Waiswa, A. Amouzou, C. Mathers, D. Hogan, et al., Stillbirths: rates, risk factors, and acceleration towards 2030, *Lancet* 387 (10018) (2016) 587–603, doi:[http://dx.doi.org/10.1016/S0140-6736\(15\)00837-5](http://dx.doi.org/10.1016/S0140-6736(15)00837-5).
- [10] A. Wojcieszek, F. Boyle, J. Belizán, J. Cassidy, P. Cassidy, J. Erwich, et al., Care in subsequent pregnancies following stillbirth: an international survey of parents, *Int. J. Obstet. Gynaecol.* 125 (2) (2018) 193–201, doi:<http://dx.doi.org/10.1111/1471-0528.14424>.
- [11] U.M. Reddy, Prediction and prevention of recurrent stillbirth, *Obstet. Gynecol.* 110 (5) (2007) 1151–1164, doi:<http://dx.doi.org/10.1097/01.AOG.0000287616.71602.do> Epub 2007/11/06. PubMed PMID: 17978132.
- [12] K. Lamont, N.W. Scott, G.T. Jones, S. Bhattacharya, Risk of recurrent stillbirth: systematic review and meta-analysis, *Br. Med. J.* 350 (2015) h3080, doi:<http://dx.doi.org/10.1136/bmj.h3080>.
- [13] S. Robson, A. Chan, R.J. Keane, C.G. Luke, Subsequent birth outcomes after an unexplained stillbirth: preliminary population-based retrospective cohort study, *Aust. N. Z. J. Obstet. Gynaecol.* 41 (1) (2001) 29–35, doi:<http://dx.doi.org/10.1111/j.1479-828X.2001.tb01290.x> Epub 2001/04/04. PubMed PMID: 11284643.
- [14] K.J. DeBackere, P.D. Hill, K.L. Kavanaugh, The parental experience of pregnancy after perinatal loss, *J. Obst. Gynaecol. Neo. Nurs.* 37 (5) (2008) 525–537, doi:<http://dx.doi.org/10.1111/j.1552-6909.2008.00275.x>.
- [15] A.E.P. Heazell, J. Clewlow, Protecting families from recurrent stillbirth, *Br. Med. J.* 350 (2015) h3262, doi:<http://dx.doi.org/10.1136/bmj.h3262>.
- [16] T. Mills, C. Ricklesford, A. Cooke, A. Heazell, M. Whitworth, T. Lavender, Parents' experiences and expectations of care in pregnancy after stillbirth or neonatal death: a metasynthesis, *Int. J. Obstet. Gynaecol.* 121 (8) (2014) 943–950, doi: <http://dx.doi.org/10.1111/1471-0528.12656>.
- [17] N.N.N. Ladhani, M.E. Fockler, L. Stephens, J.F.R. Barrett, A.E.P. Heazell, No. 369–Management of pregnancy subsequent to stillbirth, *J. Obstet. Gynaecol. Can.* 40 (12) (2018) 1669–1683, doi:<http://dx.doi.org/10.1016/j.jogc.2018.07.002>.
- [18] P. Turton, W. Badenhorst, P. Hughes, J. Ward, S. Riches, S. White, Psychological impact of stillbirth on fathers in the subsequent pregnancy and puerperium, *Br. J. Psychiatry* 188 (2) (2018) 165–172, doi:<http://dx.doi.org/10.1192/bjp.188.2.165> Epub 01/02.
- [19] J. O'Leary, C. Thorwick, Fathers' perspectives during pregnancy, postperinatal loss, *J. Obstet. Gynecol. Neonatal Nurs.* 35 (1) (2006) 78–86, doi:<http://dx.doi.org/10.1111/j.1552-6909.2006.00017.x>.
- [20] Burnet Institute, Rapid Review of Maternal Health Recommendations Related to the COVID-19 Pandemic available from, (2020) . [burnet.edu.au/projects/435](http://burnet.edu.au/projects/435).
- [21] M. Cooper, King R Women's Experiences of Maternity Care During the Height of the COVID-19 Pandemic in Australia Australian College of Midwives available from, [https://www.midwives.org.au/sites/default/files/uploaded-content/field\\_content\\_file/acm\\_survey\\_report\\_women\\_experiences\\_during\\_covid\\_19.pdf](https://www.midwives.org.au/sites/default/files/uploaded-content/field_content_file/acm_survey_report_women_experiences_during_covid_19.pdf).
- [22] A. Khalil, P. von Dadelszen, T. Draycott, A. Ugwumadu, P. O'Brien, L. Magee, Change in the incidence of stillbirth and preterm delivery during the COVID-19 pandemic, *JAMA* (July) (2020), doi:<http://dx.doi.org/10.1001/jama.2020.12746>.