

# Recurrent Miscarriage An evidence-informed model of care

# Key messages from the RE:CURRENT project

While our evaluation identified **some good practice** in recurrent miscarriage care nationally there was much **variation in service provision and poor care experiences** were often reported. Our findings provide support for the implementation of an evidence-informed model of care in Ireland to ensure that people receive a standardised, dedicated, equitable, accessible and adequately resourced recurrent miscarriage service. **People experiencing recurrent miscarriage should be offered appropriate, individualised, timely and accessible care and support – beginning following the first miscarriage and following a graded <b>approach**. Implementation of such a model requires several multi-level actions, including prioritising recurrent miscarriage care, adequately funding and resourcing services, enhancing health professional education and support, care coordination within and between hospitals and primary care, and improving public awareness of, and addressing stigma surrounding, miscarriage.

## What is known?

Miscarriage is the spontaneous loss of a pregnancy before it reaches viability. At a population level, 10.8% of women will have had one miscarriage, 1.9% will have had two miscarriages and 0.7% will have had three or more miscarriages<sup>1</sup>. Miscarriage has physical, psychological and economic impacts<sup>1</sup>. While research has explored women's, and increasingly men's, experiences of miscarriage and miscarriage care in the first trimester, there has been less focus specifically on recurrent first trimester miscarriage (RM), and on health professionals' experiences. Until the publication of the first national clinical guideline for RM in January 2023<sup>2</sup>, RM was defined as the loss of three or more consecutive pregnancies.



There is much debate about how to organise and provide care for people who experience RM, with consensus growing internationally for a graded model in which women are offered appropriate, individualised support following their first and subsequent miscarriages<sup>3</sup>. Research is needed to explore the potential targets for improvement of RM care, in addition to identifying factors that support or hinder service improvement efforts and the implementation and/or sustainment of desired models of care.

### What did we do?

As part of the Health Research Board-funded RE:CURRENT project, we conducted a series of studies to evaluate RM services in Ireland. When the project was designed, there was no national standard or clinical guideline regarding the provision of services and supports for people who experience RM in Ireland.















	No.	Study	Objectives	Key findings
	1	Systematic review of clinical guidelines for RM <sup>4</sup>	To identify, appraise and describe clinical practice guidelines published since 2000 for the investigation, management, and/or follow-up of RM within high-income countries	<ul> <li>32 guidelines (including 373 relevant recommendations) identified.</li> <li>Varying levels of consensus found across guidelines, some conflicting recommendations.</li> </ul>
	2	Qualitative interview study examining perspectives on RM services (13 women and 7 men with RM; 42 service providers) <sup>5-7</sup>	To explore the views of women and men with lived experience of RM, and those involved in the delivery/management of services and supports, on how RM is and/or should be defined <sup>5</sup>	A nuanced approach to defining RM is warranted, one which is evidence-informed, recognises the individual needs of women/couples, and considers healthcare resources.
			To describe the impact of the COVID-19 pandemic on experiences and perceptions of RM care <sup>6</sup>	<ul> <li>Significant service changes during the pandemic, with wide-ranging impacts.</li> <li>Dispensability of RM: Some felt that service reduction and redeployment demonstrated a lack of value in the service.</li> <li>Feeling disconnected: Men struggled with not being present to support their partners; Many women navigated miscarriage diagnosis and management alone resulting in increased trauma; Virtual clinics facilitated access, but in-person care preferred.</li> </ul>
			To explore the views of knowledge users regarding RM services and supports; specifically: (i) practices and experiences, and (ii) facilitators and barriers to providing desired services and supports <sup>7</sup>	<ul> <li>Our analysis supports the need for a standardised, dedicated, and adequately resourced and supported service – one in which people experiencing RM are offered appropriate, individualised, timely and accessible care and support, beginning following the first miscarriage, and following a graded model.</li> <li>Implementation of such a service requires: (i) prioritising RM care, (ii) adequately funding and resourcing services, (iii) enhancing health professional education and support, (iv) care coordination within and between hospitals and primary care, (v) improving public awareness of, and (vi) addressing stigma surrounding, miscarriage.</li> </ul>
	3	Development of key performance indicators (KPIs) <sup>8</sup>	To develop guideline- based KPIs for RM care with a diverse stakeholder group for use in a national service evaluation	• From an initial list of 373 recommendations and 14 outcomes, together with the Research Advisory Group, we prioritised 110 indicators for inclusion in the final suite of KPIs: (i) structure of care (n = 20); (ii) counselling and supportive care (n = 7); (iii) investigations (n = 30); treatment (n = 34); outcomes (n = 19).

No.	Study	Objectives	Key findings
4	National RM service evaluation (2022) <sup>9</sup>	To evaluate RM service provision in the 19 maternity hospitals/units in Ireland against guideline-based KPIs	While we identified some good practice within services, there was considerable variation – most obvious in areas such as:  Referral criteria (provisions regarding the number of miscarriages or maternal age and number of living children)  Location of clinics Genetic counselling Recording of subsequent pregnancy-related outcomes.
5	National care experience survey (2021) <sup>10</sup>	To explore the experiences of women and men who have received RM care and identify patient-centred care items linked to overall RM care experience	<ul> <li>Of the 135 women:</li> <li>24% rated their overall RM care experience as poor (n = 32)</li> <li>64% said the care they received was much worse than expected (n = 86)</li> <li>60% stated health care professionals in different places did not work well together (n = 81).</li> <li>Women were more likely to rate a good care experience if they:</li> <li>Had a healthcare professional to talk to about their worries/fears for RM investigations (n = 71)</li> <li>Received a treatment plan (n = 70)</li> <li>Received answers they could understand in a subsequent pregnancy (n = 97).</li> </ul>
	Health economic analysis <sup>11-12</sup>	To examine the impact on quality of life, work experiences and personal finances of people receiving RM care <sup>11</sup>	<ul> <li>Survey including 135 participants found:</li> <li>Low scores on the mental component of the quality-of-life scale used, with 50% scoring well below population norm</li> <li>On average 82 hours spent off work attending RM care appointments</li> <li>70% experienced decreased work productivity</li> <li>Significant out-of-pocket expenses incurred (average per participant): investigations, scans and services (€7,930), costs for care of children/dependents while attending appointments (€245), travel (€372).</li> </ul>
6		To identify the potential costs to the Irish healthcare system of implementing a best practice RM model of care <sup>12</sup>	Micro-costing of a 'best practice' RM clinic developed as part of the RE:CURRENT Project − based on costings in 2022 − found that:  • Cost for a RM patient (≥2 consecutive losses) who has another pregnancy after receiving investigations, treatment and reassurance scans ranges between €1,634 (typical) and €4,818 (complex)  • For a RM patient who does not conceive again, costs range from €1,384 (typical) to €4,318 (complex)  • Average cost per patient is €1,871.







A standardised, dedicated, and adequately resourced and supported service in which women and men/partners with recurrent miscarriage are offered appropriate, individualised, timely and accessible care and support beginning following the first miscarriage and following a graded approach

## Dedicated staff

Dedicated time & space

Dedicated funding & support - prioritise recurrent miscarriage



- Dedicated staff have specialist and experiential knowledge
- · Staff need (ongoing) support and training
- Opportunity to strengthen primary care connections

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- · Lack of dedicated or appropriate spaces
- The importance of giving time, yet time is constrained
- · The need for nonjudgemental, empathic, accessible and timely communication, information and support
- Recognising and meeting the needs of men/partners



- · Multi-level buy-in, collaboration, leadership and champions needed to affect change in RM care
- Evidence-based service change/delivery
- Funding and resource constraints
- Societal silence around miscarriage impacts on how it is perceived, prioritised (or not) and experienced

I think if we had a dedicated pregnancy loss service in each hospital where there was just a dedicated person who was you know ensuring that people were followed up appropriately and investigated appropriately and that they were then given support in the next pregnancy and just that there was I think better ownership over everything as opposed to the somewhat chaotic services that we can have. (Specialist Registrar)

## Dedicated staff

... she [CMS-BL] was so kind and understanding towards me. She met me in the hospital a few times. She actually offered to come in to one scan with me after the missed miscarriage because she knew that I was terrified. She organised all my appointments, over the phone. Nothing was too much. And she always made sure that I was under Consultant, who knew me because after having Daughter 1... And they were very connected the two of them, in that like if there was questions or if there was issues like... Between Consultant and Bereavement Midwife I never had to worry about the extra things. (Woman with RM)



It's important to mind the staff because they're dealing with it every day. (Clinical Midwife Specialist in Bereavement & Loss)

## Dedicated time & space

We met Consultant, and she talked us through... and sure I was in such a state. And she was very good, and Bereavement Midwife explained it again. And I thought she was going and then she'd turn around and she'd say to me do you understand it and I'd say no. I didn't get it. So she sat down and she started again.... She sat down and she would have said it all again and gave us time to ask questions. You know I'm sure she was on a time scale and there was a rush, but they did give hugely when I got in there. (Woman with RM)

The physical infrastructure of the hospital... everyone is kind of in together and somebody can be actively having a miscarriage sitting in a waiting room and there's no privacy... and everybody kind of feels very vulnerable... Miscarriage is common obviously, and maybe in the maternity services people can get a little bit complacent about it because it's so common to them but of course this is a whole new language and experience for women who are experiencing it for the first, second, third time. (General Practitioner)

... you have your own loss, and you have the loss of the two of you together, but you also realise like you have to provide some sort of emotional support. And it's one of those like you can't see the wood for the trees kind of moments because you're like which do I deal with, do I deal with their emotions, do I deal with mine, is there a way to deal with them together? But I think there's no real advice that's given out on that. (Man with RM)

## Dedicated funding & support prioritise recurrent miscarriage

Like some hospitals have a lead clinician for pregnancy loss services but not every hospital has that. So where you have a hospital where you have a consultant who has a responsibility or an interest they'll drive it with the bereavement midwives. In other places it depends...It depends on the culture around bereavement care I suppose and the level of importance that it has within that particular organisation (Manager)

And I think you know people talk about you know the taboo like you know related to miscarriages and how lonely it is. Like you actually couldn't... I don't think that captures it enough like. I think its probably one of the hardest things you'll ever go through. (Woman with RM)

...Bereavement Midwife is not a counsellor. You know they can only do so much. Whereas they don't seem to have access to the services that are actually required maybe if they listened to what women were saying that they might actually be able to put something effective in place. Even simple things like I can't understand how the early pregnancy clinic is open Monday to Friday 9 til lunchtime. I mean it just beggars belief. Women have miscarriages all the time... And I think that's the other thing with this is that you're not a priority when you're having a miscarriage because the pregnant women are a priority. You're not. You don't feel that care and attention. You just don't get it because like you're not pregnant. So it's almost like well your baby is dead so you know we don't really need to deal with you but we deal with the people who are actually having babies. (Woman with RM)







# Proposed model of care for miscarriage and recurrent miscarriage

Findings from the RE:CURRENT project provide support for the implementation of the following evidence-informed model of care in Ireland (adapted from Coomarasamy et al., 2023³). People experiencing recurrent miscarriage should be offered appropriate, individualised, timely and accessible care and support – beginning following the first miscarriage and following a graded approach.

People should be guided to information and support about miscarriage, resources to meet their physical and mental health needs following pregnancy loss, and ways to optimise their health for any future pregnancy

## After 1st miscarriage

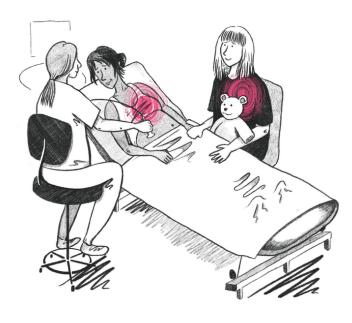
## After 2<sup>nd</sup> miscarriage

## After 3<sup>rd</sup> miscarriage

- Information (booklets / online)
- Sign-post to peer support groups
- Screening for risk factors
- Referral to other services if needed

- Appointment at nurse/midwife-led miscarriage clinic
- Appropriate investigations and treatments
- Referral for specialist care if necessary (e.g. based on test results, or medical history)
- Plans for any subsequent pregnancy, including supportive care (reassurance scans)

- Appointment at medical consultant-led clinic
- Additional investigations and treatments as appropriate
- Genetic testing on pregnancy tissue
- Screening and care for mental health issues and future pregnancy risks
- Plans for any subsequent pregnancy



After you've had one miscarriage, they should tell you exactly what to do when you get pregnant again. And what they can offer you when you get pregnant again, and what to say if you think something has gone wrong during that pregnancy. (Woman with RM)





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## Implement a graded model of care

- Offer a defined minimum set of investigations and treatments, in line with national clinical guidance
- Deliver a minimum service for people with RM in all 19 maternity units: dedicated RM clinics regionally
- Individualise care according to people's needs and preferences
- · Support implementation of national clinical **guideline** for RM
- Dedicate funding and resources resource clinics, staff, time, physical spaces
- Ensure dedicated staff in each of the 19 maternity hospitals/units:
  - · Bereavement Midwife posts filled and sustained
  - Designated staff (midwife) for miscarriage
  - Enhance education, training and support for health professionals
- Resource laboratory and genetics services to meet service needs
- Enhance supportive care and informational support for women and men/partners with RM
- Resource counselling and psychological supports for people with RM
- · Support greater care coordination and engagement between tertiary and community care
- · Implement standardised reporting of miscarriage and RM rates
- Improve public awareness of, and break the silence and stigma around, miscarriage

























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