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More systematic follow-up after childbirth

PERSPECTIVES

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When a woman has had pregnancy complications that increase her risk of future cardiovascular disease, is follow-up care failing her?

Women with a history of pregnancy complications, including pre-eclampsia, gestational hypertension and gestational diabetes, have an increased risk of cardiovascular disease at a group level. Nevertheless, our recent online survey in Norway shows that fewer than half of these women are offered appropriate follow-up care after childbirth. What does the recommended primary preventive care entail following such pregnancy complications?

Women who have experienced pre-eclampsia, gestational hypertension or gestational diabetes have a well-documented increased lifetime risk of cardiovascular disease (1, 2). The Norwegian *Guideline in Obstetrics*, published by the Norwegian Medical Association in collaboration with the Norwegian Society of Gynaecology and Obstetrics (3, 4), and several other national and international clinical guidelines (5–11) therefore recommend systematic primary preventive follow-up for these women.

The Norwegian guideline recommends follow-up by general practitioners (GPs), with a simple assessment of cardiovascular risk at 3-month and 12-month postnatal check-ups, as well as general lifestyle advice in line with the recommendations from the Norwegian Directorate of Health. At 12 months postpartum, it is suggested that the woman and her GP draw up a plan for future follow-up, including monitoring of blood pressure, blood lipids, HbA1c, body mass index, smoking status and physical activity (3, 4), tailored to her cardiovascular risk profile. In practice, however, many women report that they were never informed that their pregnancy complication may represent a valuable opportunity to address modifiable risk factors for future cardiovascular health.

> ***«The Norwegian Obstetric Guideline recommends follow-up in general practice, with a simple assessment of cardiovascular risk profile at the 3- and 12-month postnatal check-up»***

Falling through the gaps

We recently published findings from an online survey conducted in Norway in 2024–25 (12). Almost 600 women with self-reported hypertensive pregnancy complications and/or gestational diabetes participated. Only 36 % reported receiving any form of preventive cardiovascular follow-up after pregnancy. Several women made the observation that responsibility for follow-up often falls through the gaps between the specialist health service and primary care, and that they themselves had to insist on such follow-up.

Many of the women's comments suggested that post-pregnancy follow-up after complications was often inconsistent with current guidelines, for example with follow-up limited to a subsequent pregnancy or HbA1c measured only once after gestational diabetes rather than annually as recommended (4).

Our published study is based on self-reported data collected after recruitment via posters in hospitals and social media (Facebook and user organisations) (12), and is therefore unlikely to be representative of women in Norway with such pregnancy complications. Nevertheless, the responses clearly indicate that many women feel they do not receive follow-up and suggest a need for better organisation of follow-up care.

Improved follow-up in recent years

The survey demonstrated a promising temporal trend. The proportion of women reporting primary preventive follow-up after hypertensive pregnancy complications and/or gestational diabetes almost doubled after 2018 compared with earlier years (44 % vs 23 %) (12).

Recommendations for postpartum follow-up after hypertensive pregnancy complications and gestational diabetes were introduced in Norway's *Guideline in Obstetrics* in 2016. The increase in the proportion of women who report receiving information and follow-up suggests that implementation in clinical practice is improving. Nevertheless, there appears to be a substantial gap between guideline recommendations and patient-reported care.

> ***«There appears to be a substantial discrepancy between what the guidelines recommend and what women report happens in practice»***

Our findings are consistent with previous studies. In a US study, only 6 % of women with hypertension in pregnancy were informed about their increased risk of future cardiovascular disease despite clear recommendations (13). Another US study identified gaps in healthcare personnel's knowledge of long-term cardiovascular risk following pregnancy complications (14). A qualitative study conducted in the Stavanger region showed inadequate follow-up of women after gestational diabetes (15).

Why are the recommendations not followed?

There may be several reasons why the recommendations in the *Guideline in Obstetrics* (3, 4) do not appear to be implemented in practice. Lack of knowledge in both primary care and the specialist health service is one possibility. Several women in our study also called for better information flow between service levels. As antenatal care is shared between primary care (midwives and GPs) and the specialist health service (maternity departments), responsibility for informing women about recommended follow-up and ensuring ongoing care may fall through the gaps between services.

GPs play a key role in primary prevention, as they provide long-term continuity of care. They can offer personalised follow-up and treatment based on the woman's individual risk profile and motivation for lifestyle changes. This is compatible with the midwife-led model of uncomplicated pregnancy care in Norway, because midwives and GPs in primary care are expected to collaborate, particularly when a complication or risk factors develop that require medical expertise.

> ***«Since antenatal care is divided between primary care and specialist healthcare services, responsibility for who should inform and follow up the woman may be lost between the different actors»***

GPs must navigate a large number of clinical guidelines. In recent years, recommendations on follow-up in the *Guideline in Obstetrics* have been made clearer in the Norwegian Electronic Medical Handbook, which is used by most GPs. The brochure from the Norwegian Society of Gynaecology and Obstetrics, with proposals for long-term follow-up after hypertensive pregnancy complications, is accessible to patients and healthcare personnel via the health service platform Helsenorge (16).

Pregnancy complications are barely mentioned in national primary prevention guidelines for cardiovascular disease (17), which refer to 'other guidelines', without specifying the relevant chapter in the *Guideline in Obstetrics*. Gestational hypertension and gestational diabetes are not mentioned in the Norwegian Directorate of Health's recommendations, despite extensive knowledge of these pregnancy complications (1, 2).

Routine inclusion of links

We believe there is a need for better training and follow-up routines, as well as closer collaboration between primary care and the specialist health service, in order to use pregnancy as a 'stress test' for women's cardiovascular health. Our study (12) highlights that pregnancy outcomes are not being used consistently as an early screening tool for cardiovascular health in all women in Norway.

A simple first step in this direction is for discharge summaries from maternity units to GPs and child health clinics to routinely include links to current recommended follow-up in primary care (3, 4), and for patients to receive up-to-date, evidence-based patient information (16, 18). The 2026 edition of the *Guideline in Obstetrics* will propose discharge summary wording that may help improve communication between maternity departments, GPs and patients. Greater knowledge and health literacy among the women themselves will likely be an important step towards improving follow-up care and optimising modifiable risk factors following hypertensive pregnancy complications and gestational diabetes.

> ***«The 2026 edition of the Guideline in Obstetrics will contain specific proposals for discharge-summary wording that may contribute to better communication between maternity departments, GPs and patients»***

The use of digital tools in primary prevention following pregnancy complications remains largely unexplored (19). Some studies suggest that home monitoring improves blood pressure control following hypertensive pregnancy complications (20), but more comprehensive digital follow-up programmes have yet to be evaluated.

A randomised controlled trial is currently underway at Oslo University Hospital in which an app-based solution (MumCare) is being offered to women following hypertensive pregnancy complications and gestational diabetes. The trial and development of the app are a collaborative effort involving gynaecologists, midwives, user groups, IT experts, GPs, cardiologists and sociologists. One endpoint in this randomised controlled trial is to determine whether such a personalised 'digital companion' can increase the proportion of women with these pregnancy complications who receive the recommended follow-up from their GP one year after childbirth (21).

More personalised care

We believe that systematic postpartum follow-up, tailored on the basis of risk factors identified by the GP, could help deliver more personalised care while making better use of limited healthcare resources. Early identification of modifiable risk factors (such as hypertension, dyslipidaemia and glucose intolerance/diabetes), together with lifestyle advice and, where appropriate, intervention may help delay or prevent premature death due to cardiovascular disease. Effective primary prevention is also likely to reduce functional impairment and help preserve quality of life in those who survive serious cardiovascular events such as stroke and other thromboembolic disease.

We believe it is time for Norway to lead the way with a more targeted women's health strategy to prevent cardiovascular disease. Using pregnancy outcomes as an opportunity to prevent cardiovascular disease could bring substantial

benefits for women and their families, while also improving the use of healthcare resources.

The article is based on Ingerid Bentsen's 2026 medical school research project.

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