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COMMENTARY

First global guideline of the World Health Organization on pregnancy care in sickle cell disease: Balancing maternal equity and ethical accountability

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The June 2025 release of the World Health Organisation (WHO)'s first global guideline on managing sickle cell disease (SCD) in pregnancy marks a milestone in maternal and public health [1]. As an inherited haemoglobinopathy, SCD imposes physiological, psychological, and social burdens on women of reproductive age. Yet maternal health frameworks have long lacked clinically comprehensive and ethically grounded guidance. This new WHO guideline is not only a scientific advancement—it is an ethical imperative. SCD affects more than 7.7 million people globally, primarily in sub-Saharan Africa, the Middle East, South Asia, and the Caribbean. Improved childhood survival has led to more women with SCD reaching reproductive age, who face a four- to eleven-fold higher risk of maternal mortality compared to their peers. They are also at increased risk for severe anaemia, pre-eclampsia, thromboembolic events, infections, and adverse fetal outcomes such as growth restriction, preterm birth, and stillbirth. Existing guidance has largely been based on high-income contexts, with limited relevance to low- and middle-income countries (LMICs), where the disease burden is highest.

The WHO guideline addresses this critical gap with over 20 evidence-based recommendations tailored for resource-constrained settings. It combines clinical science with a focus on equity, improving pharmacological management: up to 5 mg of folic acid is advised in non-malaria regions, and 400 µg in areas receiving sulfadoxine-pyrimethamine. Routine iron supplementation is discouraged unless deficiency is confirmed. Prophylactic transfusions are recommended for women with severe or frequent crises, subject to careful risk-benefit evaluation.

Importantly, the guideline revises the traditional recommendation to avoid hydroxycarbamide (hydroxyurea) during pregnancy. It now supports use after the first trimester under a shared decision-making model—prioritising autonomy and individualised risk-benefit dialogue [2]. Pain management, which has historically been neglected, is emphasised through personalised plans that may include paracetamol, NSAIDs, and opioids, based on gestational age and clinical history. Hospitalised patients should receive fluid balance management, prophylactic anticoagulation, and structured fetal monitoring with growth scans every four weeks from 24 to 32 weeks, and every three weeks thereafter.

Delivery planning is individualised. Vaginal delivery is preferred unless medically contraindicated. The timing of delivery should balance maternal and fetal risk while centring informed maternal choice [3]. Postnatal care includes surveillance for thrombosis, newborn screening, contraception counselling, breastfeeding support, and timely re-initiation of hydroxyurea when clinically appropriate. The integration of SCD-specific services into reproductive healthcare ensures continuity throughout the life course.

The guideline's ethical foundation is as important as its clinical content. WHO explicitly calls for stigma-free, respectful, and culturally competent care. Women with SCD often face systemic bias, pain

Key messages

The WHO's first global guideline on sickle cell disease in pregnancy (2025) provides both clinical clarity and ethical accountability, offering a pathway toward safe, equitable, and dignified maternal care, especially in resource-limited settings. However, the challenges of turning the recommendations into actions need political will and strategic investments.

Table 1 Summarising the World Health Organization 2025 guideline's key clinical interventions, ethical principles, and system-level requirements

Clinical focus area	Key WHO recommendations	Public health and ethical rationale
Antenatal pharmacological care	• Daily folic acid: 5 mg (non-malaria zones); 400 µg with sulfadoxine–pyrimethamine • Iron only if deficiency documented • Prophylactic transfusion for women with prior severe crises	• Prevents adverse effects of excess folate • Preserves antimalarial efficacy • Minimizes crisis recurrence while balancing transfusion risks
Hydroxycarbamide use	• May continue/reinitiate after first trimester • Shared decision-making approach	• Promotes autonomy and individualized care • Moves beyond outdated blanket contraindications
Pain management strategy	• Individualized pain plans • Paracetamol, NSAIDs, opioids as per gestational stage/history	• Counters undertreatment of SCD pain • Respects patient preferences, reduces stigma, avoids misuse
Inpatient management protocols	• Careful fluid monitoring • Thromboprophylaxis unless contraindicated • Serial fetal scans: 24 wks (4-weekly to 32 wks), then 3-weekly	• Prevents pulmonary edema • Reduces thromboembolic risk • Enables early detection of fetal growth restriction
Labour and delivery planning	• Vaginal birth preferred unless contraindicated • Birth timing based on maternal–fetal risk and maternal preference	• Reduces unnecessary cesarean sections • Promotes safe, dignified, patient-centered delivery
Postnatal and interpregnancy care	• Monitor thrombotic complications • Newborn SCD screening • Breastfeeding support, contraception, early hydroxyurea reintegration	• Ensures maternal–newborn continuity of care • Supports safe reproductive planning • Promotes long-term disease control and parenting goals
Health system strengthening	• Invest in diagnostics, safe blood access, multidisciplinary teams, antenatal infrastructure	• Addresses systemic inequities • Calls for sustainable policy action in LMICs
Global health equity and research inclusion	• Frame SCD in pregnancy as maternal equity issue • Include pregnant/lactating women in SCD trials	• Corrects historical research exclusion • Advances reproductive justice and global accountability

dismissal, and delayed interventions. By emphasising shared decision-making, patient dignity, and provider training, the guideline affirms reproductive justice as a core value. To support implementation, a concise Table 1 summarising the WHO 2025 guideline's key clinical interventions, ethical principles, and system-level requirements is presented below. This framework clarifies the intersection between medical evidence, patient rights, and health system capacity, facilitating practical translation into care pathways. Nonetheless, implementation barriers persist. Many LMICs lack safe blood supplies, diagnostics, multidisciplinary teams, and routine antenatal monitoring. The WHO guideline must be viewed not only as a clinical roadmap but as a call for systemic reform. Investments in training, supply chains, and health infrastructure are essential [1].

This guideline also marks a paradigm shift. As the first in WHO's forthcoming series on noncommunicable diseases (NCDs) during pregnancy, it recognises chronic illness—long overlooked—as a significant contributor to maternal mortality [4, 5]. Future guidance on diabetes, cardiovascular disease, mental health, and respiratory conditions should adopt this equity-focused model.

Finally, it closes a long-standing ethical gap: excluding pregnant and lactating women with SCD from clinical trials. Their inclusion in future therapeutic studies is vital for ensuring safe, effective, and fair care.

In conclusion, WHO's guideline on SCD in pregnancy is more than just a clinical protocol; it is a transformative blueprint for maternal health equity. Rooted in autonomy, dignity, and inclusion, it sets a new global standard. The challenge now is to turn these recommendations into action, particularly in high-burden settings. With political will and strategic investment, it can become a cornerstone of safe and equitable motherhood for women living with SCD.

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Conflict of interest

We do not have any conflict of interest.

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Not applicable

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None

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