Society for Maternal-Fetal Medicine Special Statement: Postpartum visit checklists for normal pregnancy and complicated pregnancy

Rising maternal morbidity and mortality rates, widening healthcare disparities, and increasing focus on cardiometabolic risk modification in at-risk patients have together catalyzed a shift in the postpartum care paradigm. What was once a single office visit in the 6 weeks after delivery is now being reimagined as a continuum of care that transitions patients from pregnancy to lifelong health optimization. However, this shift in postpartum care also comes with increased visit complexity and additional provider burden, particularly when patients have had significant pregnancy complications or have chronic diseases. To ensure that the comprehensive needs of both healthy and medically complex people are consistently met under this revised postpartum care paradigm, a postpartum visit checklist for uncomplicated postpartum patients and another checklist for those with major medical or obstetrical morbidities are presented. These checklists are designed to ensure that essential elements of physical and mental well-being are routinely considered, that adequate follow-up or specialty referrals are made, and that relevant future health risks are appropriately reviewed and discussed.

Key words: anemia, cardiovascular disease, depression, fetal growth restriction, fourth trimester, metabolic syndrome, obesity, preeclampsia, pulmonary disease, rheumatologic disorders

Introduction

The postpartum period or the “fourth trimester” is a challenging time for patients, both physically and emotionally, as they recover from childbirth and adjust to life with a newborn. Furthermore, it is a period of serious potential risk. Approximately 15% of severe maternal morbidity develops de novo within 6 weeks of delivery discharge. One-third of pregnancy-related deaths in the United States occur between 1 week and 1 year after delivery, with one-fifth occurring between 1 and 6 weeks postpartum. These risks are even more salient for patients who have had pregnancy-related complications or have chronic underlying health conditions because they impose a disproportionate morbidity and mortality burden.

In response to these trends, the American College of Obstetricians and Gynecologists (ACOG) convened a 2018 task force to redefine the postpartum visit, with a primary goal of addressing gaps in postpartum care that leave patients vulnerable to morbidity. The resulting guidance is a 94-page Postpartum Toolkit consisting of evidence-based recommendations, management considerations, and provider resources. In addition to the Postpartum Toolkit, the ACOG task force also published an accompanying committee opinion, “Optimizing Postpartum Care,” advocating for a paradigm shift in postpartum care, whereby the postpartum visit is transformed into an inclusive health assessment that bridges the transition from the intrapartum period to well-woman care. These ACOG documents outline the essential elements of the postpartum visit, including a comprehensive assessment of physical and emotional well-being, tailored testing, counseling, and referrals for complex patients.

The length, breadth, and depth of the ACOG documents can be overwhelming and may lead to difficulty with compliance and implementation in daily practice. Therefore, we sought to condense the ACOG guidelines into simple checklists to help obstetrical providers focus on the essential facets of the routine postpartum visit and direct them to the additional counseling and referral needs for patients with underlying chronic disease or who have experienced pregnancy complications.

The checklists

We present 2 separate checklists to ensure that the needs of both routine and more complex postpartum patients are met. The first checklist (Box 1) delineates critical elements of routine postpartum care for all patients, ensuring that...
Each checklist is designed to fit onto a single page. Common checklist design principles are followed, such as the use of nonserif fonts, black text on white background, plain language, and a version date. The checklist for routine postpartum care of all patients (Box 1) is self-explanatory. In contrast, the follow-up elements in the checklist for patients with pregnancy complications or medical disorders (Box 2) require some explanation, which is provided in the following paragraphs.

**Additional testing or special follow-up**

Although many persons with preexisting disease or complicated pregnancies may benefit from increased surveillance in the immediate postpartum period, certain conditions have well-defined risks that mandate closer follow-up or additional testing after delivery. For example, patients with hypertensive disorders of pregnancy are at increased risk for immediate postpartum complications, such as stroke. To reduce the risk of hypertension-associated morbidity, increased surveillance is recommended in the immediate postpartum period. Specifically, blood pressure evaluation should occur 7 to 10 days after delivery for individuals with any hypertensive disease and within 72 hours in those with severe hypertension.

Patients with mood disorders, particularly perinatal depression or anxiety, are at higher risk for poor infant bonding and self-harm, including suicide or neglect. Therefore, these patients may benefit from earlier and more frequent postpartum assessments and consideration for prompt initiation of psychotropic medications or referral to a mental healthcare provider.

Individuals with gestational diabetes mellitus diagnosed during pregnancy should have postpartum glucose screening performed between 4 and 12 weeks postpartum to identify persistent glucose intolerance that would require further management. Similarly, those with preexisting diabetes mellitus may require additional follow-up for insulin titration in the immediate postpartum period because of declining insulin resistance after delivery.

Patients with high-risk cardiovascular conditions, such as pulmonary hypertension, congenital heart disease, noncongenital valvar disease, and dilated or peripartum cardiomyopathy, warrant close postpartum surveillance given that complications are frequently encountered in the days and weeks after delivery. Early postpartum assessment 7 to 14 days postdelivery and ongoing outpatient evaluations for at least 3 months are suggested to proactively identify any concerns. Given that cardiovascular disease is the most common cause of pregnancy-related mortality in the United States, accounting for 26% of deaths that occur during pregnancy or within 1 year of delivery, close postpartum follow-up is an important strategy to promote early identification and intervention, which may reduce potential morbidity.

For individuals with systemic lupus erythematosus, increased postpartum surveillance is recommended...
because disease flares are common in the postpartum period.\textsuperscript{16,17}

**Primary care or subspecialty referral**

People with major medical disease predating pregnancy will often have an established primary care or subspecialty physician whom they have seen before pregnancy or consulted with during pregnancy. Obstetrical providers should determine whether these therapeutic relationships have been established, and if not, an appropriate referral should be made. In addition, obstetrical providers play a critical role in reinforcing the immediate and long-term benefits of

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**BOX 2**

**Checklist of additional considerations for postpartum patients with selected pregnancy complications or medical conditions**

This is a sample checklist only. Practices and facilities are encouraged to customize the checklist to fit their unique circumstances.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Additional testing or special follow-up</th>
<th>Referral to subspecialty or primary care</th>
<th>Counseling about cardiovascular or metabolic risks</th>
<th>Preconception consultation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pregnancy complications</strong></td>
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<tr>
<td>Hypertensive disorders\textsuperscript{a}</td>
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<tr>
<td>Spontaneous preterm birth</td>
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<td>Cervical insufficiency</td>
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<td>Spontaneous preterm labor</td>
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<td>Preterm prelabor rupture of membranes</td>
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<tr>
<td>Fetal growth restriction</td>
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<td>Gestational diabetes mellitus\textsuperscript{b}</td>
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<tr>
<td><strong>Medical conditions</strong></td>
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<td>Pulmonary hypertension</td>
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<td>Antiphospholipid antibody syndrome</td>
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<td>Other collagen vascular diseases</td>
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<tr>
<td>Pulmonary conditions</td>
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<td>Asthma, severe or uncontrolled</td>
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<td>Cystic fibrosis</td>
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<td>Gastrointestinal disorders</td>
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<td>Renal disease, chronic</td>
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<tr>
<td>Hematologic disorders</td>
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<td>Chronic anemia</td>
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<td>Hemoglobinopathy</td>
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<td>History of venous thromboembolism</td>
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</table>
chronic disease optimization, including encouraging patients to make and keep future appointments or comply with testing or treatment recommendations.

Patients with pregnancy-specific conditions, such as early-onset preeclampsia or gestational diabetes mellitus, may not have established primary care or subspecialty relationships, and referral will be required. Early-onset hypertensive disease or HELLP (hemolysis, elevated liver enzymes, and low platelets) syndrome are significant risk factors for long-term cardiovascular disease. Therefore, prompt follow-up with either a primary care physician or a cardiologist should be strongly considered for risk mitigation. Similarly, gestational diabetes mellitus is a known risk factor for type 2 diabetes mellitus and cardiovascular disease. Consequently, patients with gestational diabetes mellitus in pregnancy, particularly those with impaired fasting glucose levels or evidence of persistent glucose intolerance in the postpartum period, may benefit from early referral for preventative or medical therapy to prevent the progression to overt diabetes mellitus.

The postpartum period is a window of opportunity for evaluation of and intervention for certain preexisting conditions that may persist after pregnancy, such as obesity or anemia. Obesity deserves special attention because it is one of the most common medical conditions affecting people in the United States. Obese persons benefit from behavioral counseling referrals focused on diet and exercise, which may reduce future reproductive risks and long-term health implications.

Anemia affects 22% to 60% of postpartum patients and deserves additional attention because treatment results in improved physical and emotional well-being. Evaluation of chronic or severe anemia can be initiated by the obstetrical provider in the postpartum period with additional referrals as needed for ongoing management.

Counseling about metabolic risk
Pregnancy complications clearly provide a window into future metabolic health insofar as certain pregnancy morbidities unmask susceptibility to cardiovascular and metabolic disease in later life. Preeclampsia’s link to cardiovascular disease has long been recognized and is well-characterized. More recently, other pregnancy complications have also been identified as risk factors for developing cardiovascular disease in later life, including gestational hypertension, gestational diabetes mellitus, idiopathic preterm birth, and fetal growth restriction.

Despite these well-defined associations, many obstetrical care providers remain unaware of the relationship between pregnancy-specific complications, which may affect up to 20% of pregnancies, and the increased risk for long-term cardiovascular disease. Despite awareness of this important link, many providers do not consistently initiate risk-factor screening or implement appropriate referrals.

For patients who have experienced pregnancy complications, a standardized process for education about long-term metabolic risks with appropriate referral is critical to future risk modification. This education should occur during the postpartum visit for patients who have experienced any of the following conditions: hypertensive disorders of pregnancy, idiopathic preterm birth, fetal growth restriction, or gestational diabetes mellitus.

Peripartum cardiomyopathy has a particularly high risk of cardiovascular complications and unequivocally requires thorough postpartum counseling and expeditious cardiology follow-up.

Prepregnancy consultation
Prepregnancy counseling is an important strategy to reduce the risk of adverse outcomes in subsequent pregnancies. This counseling is particularly important for patients who have experienced previous pregnancy-related complications and those with chronic health conditions. Because family planning interventions, including risk assessment and appropriate counseling, can potentially prevent up to 30% of maternal deaths worldwide, preconception care is an important strategy to address the ongoing maternal morbidity and mortality crisis.
For patients who have experienced adverse pregnancy outcomes, specifically early-onset hypertensive disorders, cervical insufficiency, preterm birth before 34 weeks, or fetal growth restriction, prepregnancy counseling focuses heavily on potential morbidity recurrence in a future pregnancy, lifestyle modifications that may reduce obstetrical complications (eg, weight loss, smoking cessation), and interventions that may modify the risk of recurrence (eg, low-dose aspirin or prophylactic cerclage).26,29

For patients with significant medical comorbidities, prepregnancy counseling is an opportunity to discuss the risk of adverse pregnancy outcomes, review the potential effect of pregnancy on disease severity or long-term outcome, address any modifiable risk factors, and ensure that all medications being used are compatible with pregnancy.10

Despite the evidence that prepregnancy counseling, education, and reinforcement by an obstetrical provider can affect patient behavior,30 prepregnancy care for high-risk patients remains largely underutilized (18%—45% of pregnancies).31 Strategies to improve risk assessment and prepregnancy education are clearly needed. One strategy is to begin risk assessment and counseling in the immediate postpartum period and extend it into the interpregnancy period. Another strategy is to use general obstetricians for such counseling in regions without maternal-fetal medicine coverage. Advocacy for policies that increase insurance coverage and access to care is an additional option.27 The continuation of Medicaid coverage for a full year after delivery will undoubtedly improve access to postpartum care, family planning resources, specialty referral, and prepregnancy counseling for the millions of patients who deliver annually under Medicaid.

Suggestions for implementation
If individual practitioners want to incorporate these checklists into their practice, implementation should be simple. The checklists can be modified as needed, printed on standard paper, assembled front-to-back, and laminated together. If a laminated copy is kept in each room where postpartum visits are conducted, the provider will have it on hand for ready reference during each visit. Alternatives can be considered, such as a wall poster in the examination room or a paper version to be completed and filed in the patient chart. Whichever format is chosen, providers are encouraged to reference the checklist and systematically complete each element during the postpartum encounter. Relying on memory to complete the list will risk omission of key items.

For practices with more than 1 practitioner, implementation starts with a decision by the group to begin using the checklists for postpartum visits. This decision may be driven by practice leadership, by 1 or more clinical “champions,” or by a consensus of the practitioners. The willingness of all members of the clinical team to use the checklists should be discussed. It is preferred that all members of the practice follow the same checklist because standardization minimizes confusion and generally improves quality and safety.

An implementation team is critical to the success of any strategic plan or process change. For these checklists, the team should consist of at least 1 representative from each type of practitioner who will be using the checklists (eg, obstetrician, maternal-fetal medicine, nurse-midwife, nurse practitioner, physician’s assistant). Given the number of patients who may need a referral to subspecialty care, including a referral care coordinator or nurse navigator should be considered.

The team should start by reviewing the content of the checklists to determine whether they need to be modified to reflect local referral patterns, for example, because of the unavailability of certain types of specialists for follow-up care or other local circumstances.

Next, the team should consider what format should be used to make the checklists available during each postpartum visit. The checklist could be a laminated sheet, wall poster, or paper document for the patient chart. Alternatively, the team may want to incorporate the checklists into the electronic medical record to ease the documentation burden, improve efficiency in the examination room, and aid in timely referral. If so, an expert from health informatics will need to be added to the team.

Planning an implementation strategy, developing a roadmap, and drafting a proposed timeline will provide the team with a structured approach to checklist implementation and improve the likelihood of success. Implementation planning can help streamline communication, organize resources, and improve the likelihood of buy-in for using the checklist. After a road map has been developed, the roll-out plan should be discussed and communicated early and often using different types of communication, including email, office newsletter, signage, and verbal discussion in staff meetings. It should be announced and shared well in advance of the implementation date, affording the opportunity for feedback and process improvement. When operational change is going to occur, it is better to overcommunicate than undercommunicate. Developing tentative milestones for action items and deliverables will provide early wins to the implementation team. Pre- and postimplementation review of the checklist items can show the success of implementation and identify areas for improvement. Ultimately, providing transparency to the checklist implementation process will improve the likelihood of use and acceptance.

Once the checklists have been incorporated into clinical practice, the implementation team should monitor compliance and follow-up. Feedback regarding the checklists should be solicited from all team members, and suggestions for process improvement should be quickly evaluated and incorporated as needed. If a checklist is revised, the updated version should be clearly marked with the current date and older versions should be discarded.
Implementation for telemedicine
The COVID-19 pandemic has forced traditional care models to be redesigned and reimagined, largely through the use of telemedicine. Telemedicine has many potential advantages for postpartum care. There are many potential barriers to patients receiving adequate postpartum care, including the need to arrange for infant care, transportation challenges, and other access issues. Implementation of postpartum telehealth options via video or telephone visits or remote monitoring may help to overcome these barriers, improve compliance with recommended follow-up, and mitigate disparities in maternal care. Telehealth visits may be particularly appealing for persons with complex medical or social needs who may require multiple postpartum visits to provide necessary testing, follow-up, and referrals.

If telemedicine solutions are being used, the postpartum care checklists can still be used. The implementation team should consider whether a separate implementation plan is required to incorporate the checklists into telehealth encounters.

Suggested quality indicators
After the checklists have been deployed into practice, quality indicators can be tracked to evaluate whether the suggested postpartum visit elements are being completed. These indicators are not formal quality metrics for payers or hospitals to compare providers or practice groups; rather, practices may use them as guideposts to perform internal “spot checks” and to identify areas that might need improvement. To this end, an informal review of 10 to 20 relevant charts will likely give a reasonable gauge of performance. Examples include the following:

- Evaluation within 3 days after discharge following diagnosis of severe hypertension, either in person or via telemedicine
- Glucose tolerance testing at 4 to 12 weeks postpartum in patients with a diagnosis of gestational diabetes mellitus
- Follow-up within 7 to 14 days postpartum for patients at increased risk for short or long-term cardiovascular complications, either in person or via telemedicine
- Documentation of counseling regarding future cardiovascular risk in relation to pregnancy-specific conditions
- Appropriate primary care or specialty referrals within 12 weeks of delivery for patients with chronic medical conditions or significantly elevated risk of long-term cardiovascular morbidity
- Primary care or specialty referral for management of postpartum depression
- Disparities in the rates of these measures between different racial and ethnic groups

The practice can direct quality improvement efforts toward individual items with low rates of completion. A low completion rate for all items might indicate that providers are not using the checklists, and efforts may need to be directed toward increasing use.

Conclusion
The approach to postpartum care is evolving, and ACOG now recommends that postpartum care should be an ongoing process rather than a single visit with a “one size fits all” approach. The goals of our postpartum checklists are to facilitate the completion of all key components of postpartum care and provide a safe and effective transition to well-person care.

REFERENCES
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This document has undergone an internal peer review through a multilevel committee process within SMFM. This review involves critique and feedback from the SMFM Patient Safety and Quality and Document Review Committees and final approval by the SMFM Executive Committee. SMFM accepts sole responsibility for the document content. SMFM publications do not undergo editorial and peer review by the American Journal of Obstetrics & Gynecology. The SMFM Patient Safety and Quality Committee reviews publications every 36 to 48 months and issues updates as needed. Further details regarding SMFM publications can be found at www.smfm.org/publications.

The Society for Maternal-Fetal Medicine (SMFM) recognizes that obstetrical patients have diverse gender identities and is striving to use gender-inclusive language in all of its publications. SMFM will be using terms such as “pregnant person” and “pregnant individual” instead of “pregnant woman” and will use the singular pronoun “they.” When describing study populations used in research, SMFM will use the gender terminology reported by the study investigators.

Reprints will not be available.