Recommendations for Residency Programs and Surgical Departments and Practices to Address the Needs of Early-Career Surgeon Mothers and Mitigate Pregnancy-Associated Health Risks

Recommendations and Practices

1. Training programs should include policies to support pregnant and expecting trainees and should be clearly written and openly discussed to avoid misunderstandings from other members of the surgical team. Provision of such support during residency demonstrates a commitment from the department to support parenthood during training, enforces that time for parental bonding is an expectation, and encourages trainees that are ready to start families that they do not need to wait until the end of a 5- to 7-y residency to have children, as younger maternal age may reduce use of assisted reproductive technology and lower future complication rates. These policies should include:
   - **A.** Schedule flexibility for pregnant trainees, including less demanding rotations scheduled close to term and on initial return after childbirth. This may mitigate potential risks to maternal and fetal health for pregnant residents and help returning trainees adjust to balancing new family and work priorities.
   - **B.** At least 6 wk of paid parental leave exclusive of vacation time and consistent with new recommendations from the American Board of Medical Specialties and the Accreditation Council for Graduate Medical Education[58] without need to extend training should be provided. To allow healthy time for maternal care and parental bonding, residents should be encouraged to take the full 12 wk of leave recommended by the American Academy of Pediatrics.[59] To avoid compromising education requirements and meet American Board of Surgery eligibility,[60] extension of training may be necessary and should be facilitated.
   - **C.** Nonchildbearing residents should be encouraged to take full parental leave. All parents should have time off to bond with a new infant, including those who have children by adoption or surrogacy. Normalization of parental leave for both male residents and female residents helps override the narrative that parenting is an issue exclusive to women and changes surgical culture to accept time away for family needs.
   - **D.** Fellowship programs should be prepared to delay the start of training for trainees who need to extend training after maternity leave. For a 12-wk maternity leave, such a delay would be unlikely to exceed several weeks, given most fellowships start August 1 of each year.
   - **E.** Service coverage during leave should be provided by moonlighting physicians or advance practice clinicians while residents are on leave to avoid resentment from colleagues asked to take over additional work and to facilitate culture change to reduce stigma associated with childbearing.
   - **F.** Pregnant residents should not be asked to make up call shifts missed during maternity leave, as increased work hours or overnight shifts may heighten risk of pregnancy complications.
   - **G.** Nursing residents should be supported after delivery with written policies that permit cross-coverage during long cases and education for faculty regarding the duration and frequency new mothers require to pump milk.
   - **H.** The American Board of Surgery requires residents to complete training by August 31 to take the qualifying examination, which is currently only offered once a year.[61] Offering the examination more than once a year would reduce delays in board certification because of childbearing and parental leave.
   - **I.** Many academic research programs require research in the middle of clinical training. Although many program directors and trainees consider this an ideal time to start a family,[5] pregnancies cannot be precisely scheduled, and this timeline may not align with residents' personal circumstances. For female trainees who choose to have children after residency, research prolongs training and may increase risk of infertility. Research during residency should be optional and timing should be flexible.
   - **J.** Mentors of the same sex, ideally another surgeon mother, can offer experience-based advice in balancing professional and personal commitments, help set realistic expectations, and provide a safe setting to discuss challenges.

2. Institutions and practices should foster a supportive work environment through coverage plans for pregnancy and leave for practicing physicians. These policies should be clearly outlined in a surgeons' contracts and should include the following:
   - **A.** Pregnant surgeons may reduce their operative commitments in their third trimester without financial penalty. Multiple-gestation pregnancies may require reduction in operative schedules earlier in the pregnancy.
   - **B.** A minimum of 12 wk of paid parental leave should be offered, exclusive of vacation time. This should be a separate allocation than the disability that may be required during pregnancy.
   - **C.** Surgeons shoud not be required to make up missed calls or sustain revenue losses that result from leave. Productivity bonuses, which may constitute a considerable portion of take-home wages, should reflect prepregnancy performance.
   - **D.** Additional clinical duties taken by colleagues should be compensated to avoid resentment.
   - **E.** Surgeons returning to clinical practice after maternity leave should have a defined plan to restore clinical work after leave.

3. Both trainees and practicing physicians should be provided with the following:
   - **A.** A substantial proportion of surgeons require ART, wich involves considerable expense and frequent imaging, procedures, and laboratory work. Surgeons should be encouraged to take appropriate time off from clinical duties during such treatment. Institutions in states without mandatory comprehensive ART insurance coverage should offer financial aid or additional insurance coverage for ART.
   - **B.** Mothers who choose to breastfeed should be supported with dedicated private lactation space with proximity to the operating room and clinical spaces. These facilities should include a high-speed pump, sink, microwave, and a refrigerator for storing milk. Operative and clinic schedules should be adjusted to accommodate time for postpartum surgeons to pump and store milk.
   - **C.** Teaching hospitals and larger institutions should provide onsite childcare with priority for trainees who have the longest workhours and the least scheduling flexibility. The fee schedule should be prorated to better accommodate trainees' salaries.
   - **D.** Formal ergonomic consultation should be obtained for pregnant surgeons to avoid musculoskeletal injury in the operating room.
   - **E.** Fetal dosimeters should be provided and checked monthly to demonstrate adherence to established limits of less than 5 millisieverts for the gestation. Pregnant surgeons should not participate in hyperthermic intraperitoneal chemotherapy operating rooms and should use 3 layers of gloves when handling chemotherapeutics. Surgeons using methyl methacrylate should be provided surgical hooded helmets in operating rooms with laminar airflow for proper ventilation.
   - **F.** Timely referral to mental health resources for postpartum depression, with appropriate time away from practice or training for treatment, should be provided.

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