

Preface

“Doctor...I’m Pregnant”!



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Editor

Suddenly she turned, smiled, and said, “Dr Schulman, I’m eight weeks pregnant.” “Mazel tov.” I scurried to review her problem list, medication list, and my last note. I panicked slightly. Sound familiar? Was my patient taking potentially toxic meds during this first trimester? Is my knowledge up-to-date? Can I confidently counsel her, answering her many questions?

When I accepted Elsevier’s offer to edit this issue of *Immunology and Allergy Clinics of North America* on pregnancy, I envisioned a one-stop-shopping, state-of-the-art guide. I listed key topics and then sought to enlist trusted A-list authors to produce a definitive sourcebook. Distinguished colleagues in the realms of basic immunology, otolaryngology, dermatology, epidemiology, pharmacology, allergy, nutrition, immune disorders, and pulmonary emergency medicine shared that vision. I am very grateful to them.

The issue starts with the immune system’s gestational development and goes on to a review of adaptations that the maternal upper and lower airways make during pregnancy. The following articles cover nutrition and the influence of maternal exposures, known as the exposome, on the child’s immune outcomes.

Next is the management of upper-airway disorders, chronic asthma, and *status asthmaticus gravidus*. Then comes anaphylaxis in pregnancy followed by the pregnancy considerations of common allergic skin disorders, primary antibody deficiency, hereditary angioedema, and mastocytosis. The final articles deal with the risks associated with drugs, especially biologics. The culminating article discusses the potential for improving pregnancy outcomes in underserved communities.

Editing this issue proved to be a valuable learning opportunity. Each article yielded vital takeaways that stuck with me. The emergence of the immune system during gestation is a monumental and beautiful task. Understanding it has undergone quantum leaps. Spirometry remains a useful clinical tool because, despite anatomical changes, there are no important differences in the maternal forced expiratory volume

in 1 second or forced vital capacity during pregnancy. However, sleep-disordered breathing is underdiagnosed. Moreover, maternal nutrient intake may influence the offspring's microbiome and especially its susceptibility to allergy. Since its effects are both internal and external, the quality of the exposome is vital to the development of fetal immunity.

The origins of rhinitis in pregnancy are complex, not hormonal alone. If the clinician stresses the importance of NOT STOPPING asthma medications and if the patient heeds the point, then asthma remains highly controllable during pregnancy. Proper medication management will not harm the baby while controlling asthma. In the case of severe asthma, it is critical to monitor oxygenation in both the patient and the fetus. Pregnancy-induced changes in the patient's anatomy make intubation complicated and mechanical ventilation challenging.

In anaphylaxis, we must "think outside the box" during pregnancy because there are many factors in addition to drugs that may cause it. Allergic skin disorders require a balance among the elements of medication safety profiles, minimum effective dosing, and disease control.

Even though primary immune defects of antibody production do not preclude a normal pregnancy, immunoglobulin replacement therapy must account for placental transfer of a variety of factors, including immunoglobulin G. Hereditary angioedema symptoms are highly unpredictable. Therefore, HAE and obstetric specialists must collaborate closely. While mastocytosis does not contraindicate pregnancy, careful medication management is essential, especially in anesthesia usage at the time of delivery.

This issue ends with a detailed discussion on the safety of medications, especially biologics. It is vitally important to optimize care strategies in low-resourced areas. High health care costs, morbidity, and mortality must be minimized.

In closing, I want to thank the very helpful people at Elsevier and our roster of outstanding authors who prepared this issue of the *Immunology and Allergy Clinics of North America*.

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