Asthma in pregnancy

- Independent risk factor for asthma exacerbation (AE)
- The one-third rule applies when predicting the effects of pregnancy on the course of asthma
    - One-third of patients improve, one-third worsen, and one-third remain stable
- Management
    - As-needed SABA
    - Controller therapy is best initiated with ICSs
        - Budesonide is the best studied and should be the ICS used when initiating therapy
    - ICS dose should be escalated before adding a LABA
    - The LABAs are not well studied in pregnancy but are thought to be safe and are used in the stepwise management. Formoterol is usually used and always with an ICS
- Leukotriene modifiers can be considered as alternative therapies for mild persistent asthma or as add-on therapy to ICS
- Omalizumab can be continued if used before pregnancy but should generally not be initiated
    - There is an ongoing mepolizumab trial with results pending
- Overall, the management is similar whether they are pregnant or not with a few exceptions
    - ICS therapy should not be stopped or step-down and the current regimen should be continued
    - LAMA are not recommended owing to lack of strong human data and some animal data showing toxicity at 40 times the human daily dose
- AEs should be treated similar to not pregnant
    - SABA or inhaled ipratropium
    - Escalation of therapy
        - Higher doses of ICS
        - Addition of a LABA
        - Addition of a leukotriene modifier
    - When needed, a short course of oral or IV corticosteroids
        - It should be emphasized that potential risks of systemic glucocorticoids are small compared with the substantial risk to the mother and fetus of severe uncontrolled asthma