What is the best treatment for chlamydia in pregnancy?

Evidence-Based Answer
For treatment of chlamydia in pregnancy, azithromycin 1 g taken orally as a single dose has similar effectiveness, better patient adherence, and fewer adverse effects than a 7-day course of either amoxicillin or erythromycin. (SOR A, based on a meta-analysis.) Amoxicillin and erythromycin, however, are less expensive.

A 2007 meta-analysis pooled 8 randomized controlled trials (RCTs) conducted from 1991 to 2006 with 587 patients to determine which treatment strategy for chlamydia in pregnancy was best. All patients had microbiologically confirmed Chlamydia trachomatis infections. Two RCTs compared azithromycin with amoxicillin, whereas 6 RCTs compared azithromycin with erythromycin. No difference was noted in treatment success of azithromycin compared with amoxicillin and erythromycin (6 RCTs with 374 subjects; odds ratio [OR] 1.45; 95% confidence interval [CI], 0.82–2.57). Patients taking azithromycin reported fewer gastrointestinal (GI) side effects than patients taking amoxicillin and erythromycin (7 RCTs with 412 patients; OR 0.16; 95% CI, 0.06–0.4). Total adverse events were also fewer with azithromycin than with both comparators (6 RCTs with 325 subjects; OR 0.13; 95% CI, 0.08–0.21). Patients treated with azithromycin also showed better adherence (7 RCTs with 413 patients; OR 21.96; 95% CI, 0.82–53.3).

Limitations of this meta-analysis include differences in gestational age at time of screening and differences in timing of posttreatment cervical cultures for test of cure. Reinfection rates may be decreased with more advanced gestational age because of decreased sexual intercourse rates. Later gestational age at detection may also reduce pregnancy-related GI symptoms and affect perception of medication side effects. Another limitation is the grouping of GI side effects and total adverse events of amoxicillin with erythromycin, instead of evaluating each separately.

The 2006 updated Centers for Disease Control guideline for the treatment of chlamydia in pregnancy advocates the use of azithromycin 1 g in a single dose or amoxicillin 500 mg 3 times a day for 1 week.

Treatment costs differ significantly: Azithromycin was priced at $29 versus amoxicillin for $14 and erythromycin for $17 from a major online pharmacy (http://www.drugstore.com, accessed September 16, 2009).

When is contrast indicated for thoracic and abdominal computed tomography scanning?

Evidence-Based Answer
Nearly all thoracic and abdominal computed tomography (CT) studies require contrast agent to aid in diagnosis of disease, with the exception of some urologic conditions such as renal calculi. (SOR C, based on expert opinion.)

Contrast agents can be administered by intravenous injection, oral and rectal administration, and, less commonly, inhalation (xenon CT). Intravenous contrast is used to highlight vascular anatomy, vessel patency, and organ structure. Oral contrast is used for gastrointestinal organs in the abdomen and pelvis, and rectal administration of contrast enhances images of the distal gastrointestinal tract. Oral contrast is less important in certain conditions, such as evaluations for ureteral calculi, parenchymal organ calcification, and angiography.

CT and CT angiography (CTA) have emerged as the primary diagnostic imaging modalities for patients presenting with abdominal or pelvic trauma or pain. CTA of the chest evaluates many life-threatening conditions of the pulmonary, coronary, and aortic vessels, such as coronary artery disease, pulmonary embolism, and aortic dissection. The sensitivities and specificities of these tests for various conditions, the associated likelihood ratios, and their contrast requirements are detailed in the TABLE.

The most significant risks associated with contrast agents are hypersensitivity reactions and contrast-induced nephropathy (CN). Three large observational studies indicate mild adverse reactions occur in 3.8% to 12.7% of patients receiving ionic contrast material and 0.7% to 3.1% of patients receiving nonionic...