OVERVIEW
After chlamydia, gonorrhea is the second most prevalent sexually transmitted disease reported in Oklahoma. Gonorrhea is caused by Neisseria gonorrhea, a bacterium that can grow and multiply in warm, moist areas of the reproductive tract. Gonorrhea can also grow in the mouth, throat, eyes, and anus.

In 2014, females made up 56.3% (3,451) of the 6,135 gonorrhea cases reported in Oklahoma and experienced a 14.2% rate increase from 2013 (from 154.4 to 176.3 per 100,000). In 2014, there were 284 pregnant females with gonorrhea, making up 8.2% of the 3,451 gonorrhea cases among females. The number of pregnant females with gonorrhea is suspected to be higher as pregnancy status is often not reported by providers and labs.

SYMPTOMS AND COMPLICATIONS
Gonorrhea symptoms among females may include abnormal periods or bleeding between periods; cramps and pain in the lower abdomen; thick, yellow, gray, or green discharge from the vagina; burning or pain during urination or bowel movements; or the need to urinate more often.

In females, gonorrhea infection can result in pelvic inflammatory disease, ectopic pregnancy, inflammation of the cervix, and eventually infertility. Pregnant females infected with gonorrhea can transmit the infection to their unborn babies during pregnancy or during delivery.

BY AGE GROUP
Most of these pregnant females with gonorrhea were among age groups 20 to 24 years (134; 47.2%), 15 to 19 years (69; 24.3%), and 25 to 29 years (59; 20.8%).

Pregnant Females with Gonorrhea by Age:
- 10 to 14 years – 0.4% (1)
- 15 to 19 years – 24.3% (69)
- 20 to 24 years – 47.2% (134)
- 25 to 29 years – 20.8% (59)
- 30 to 34 years – 5.6% (16)
- 35 to 39 years – 1.4% (4)
- 40 to 44 years – 0.4% (1)

BY RACE/ETHNICITY
Whites made up the majority of gonorrhea cases among pregnant females, accounting for 40.1% (114). Blacks accounted for the second largest proportion (100; 35.2%), followed by American Indians/Alaska Natives (28; 9.9%) and those reporting multiple races (22; 7.8%). All other racial groups made up 7.0% (20) of pregnant females with gonorrhea.
GONORRHEA AMONG PREGNANT FEMALES

Oklahoma had 284 reported cases of gonorrhea among pregnant females in 2014.

There was an 18% decrease in pregnant females with gonorrhea reported as appropriately treated from 2013 to 2014.

**BY GEOGRAPHY**

Tulsa County accounted for the highest number of pregnant females with gonorrhea in 2014 (92; 32.4%), representing 5.5% of the 1,664 total cases in Tulsa County. Following Tulsa County, Oklahoma County had the second-highest number of pregnant females with gonorrhea (80; 28.2%), making up 4.3% of the county’s 1,852 total cases.

Of the pregnant females with gonorrhea, the OKC MSA accounted for 39.8% (113), the Tulsa MSA accounted for 37.7% (107) and the Lawton MSA accounted for 2.5% (7). The remaining 20.1% (57) were in counties outside of these three MSAs.

**BY TREATMENT**

Pharmacological treatment of gonorrhea is the best way to avoid complications during pregnancy. In addition, a pregnant woman’s partner(s) with gonorrhea should receive appropriate treatment in order to avoid re-infection.

According to the 2010 Sexually Transmitted Diseases Treatment Guidelines, the CDC recommends dual therapy for gonococcal infections, not only in an effort to hinder the development of antibiotic resistant gonorrhea, but to also take care of the coinfections of chlamydia that patients diagnosed with gonorrhea commonly have. The recommended treatment for pregnant females with gonorrhea is dual therapy of azithromycin (1 g PO) with either ceftriaxone (250 mg IM) or cefixime (400 mg PO).

If necessary, pregnant females also have the option of being treated with azithromycin (1 g PO) and with one of these alternatives: cefpodoxime (400 mg PO) or cefuroxime axetil (1 g PO). For females who cannot tolerate a cephalosporin (e.g., ceftriaxone), 2 grams of azithromycin may be considered. Regardless of treatment regimen, repeat testing of pregnant females is also recommended in order to ensure treatment efficacy.

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2. Azithromycin given as a 2 gram dosage was considered dual therapy, and therefore appropriate, for this analysis.
Based on reported information, 170 (59.9%) of the pregnant females with gonorrhea were classified as appropriately treated for their infection. Two of these appropriately treated cases received doxycycline. Although doxycycline is an appropriate treatment for gonorrhea infection, it is contraindicated during pregnancy and is a pregnancy category D drug. In 2013, 73.2% of the cases were appropriately treated.

While the majority of pregnant females were appropriately treated, 114 (40.1%) were classified as not appropriately treated. Because dual treatment therapy is recommended for gonorrhea, patients receiving only one treatment are considered inappropriately treated. There were 65 pregnant females who received only one medication from the recommended dual treatment in 2014. Because laboratory reports that were not reported by the physicians or providers of care are missing treatment information, it is likely that more patients were actually treated appropriately.

Pregnant females with gonorrhea can transmit the infection to their unborn babies during pregnancy or during childbirth.

In females, gonorrhea can result in pelvic inflammatory disease, ectopic pregnancy, and eventually infertility.