S.C. Department of Health and Environmental Control

South Carolina Health Alert Network

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DHEC Health Advisory

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Recommendations to Address the Sustained Increase in Gonococcal and Chlamydia Infections in South Carolina

Summary

1. A sustained increase in gonorrhea and chlamydia infection rates and cases is occurring in South Carolina (S.C.).
2. Adolescents and young adults as well as racial/ethnic minority groups are disproportionately impacted by gonococcal and chlamydia infection. Infection rates differ for males and females.
3. To help reverse rising gonorrhea and chlamydia infection rates and prevent ongoing transmission, SC DHEC recommends that healthcare providers:
   a. Conduct testing and routine risk-based screening for gonorrhea and chlamydia.
   b. Promptly initiate recommended treatment.
   c. Report all gonorrhea and chlamydia cases (suspected, diagnosed, and positive laboratory results) to SC DHEC within the timeframes outlined in the South Carolina List of Reportable Conditions.

Background

Gonorrhea (*Neisseria gonorrhoeae*) and chlamydia (*Chlamydia trachomatis*) infections are common sexually transmitted infections that are transmitted though vaginal, anal or oral sexual contact with a person who has infection. Both gonorrhea (GC) and chlamydia (CT) infections cause symptoms, such as urethral discharge in men and vaginal discharge in women[1,2,3]. However, individuals with infection may be asymptomatic with infection undetected until the occurrence of infection-related complications. Untreated infection leads to pelvic inflammatory disease, infertility, and ectopic pregnancy in women as well as urethritis, epididymitis and proctitis in men. Newborns of pregnant persons with untreated infection may develop severe health complications including chlamydial pneumonia or gonococcal or chlamydial opthalmia[2,3]. GC and CT infection increases the risk of HIV acquisition and transmission[3]. Both infections are treatable with antibiotics.

CT and GC infection rates have increased in S.C. since reaching historic lows in 2000 and 2013, respectively. Sustained increases in GC and CT cases in S.C. mirror a national trend of all-time

high reported STI cases for consecutive years[4]. According to provisional 2021 surveillance data, the state's 2021 GC infection rate was 97% higher than that observed in 2013 (an increase from 154.0 to 302.94 per 100,000). The state's 2021 CT rate was 161% higher than that observed in 2000 (an increase from 247.3 to 689.0 per 100,000).

In 2021, S.C. had the 5th highest GC rate and the 3rd highest CT rate in the nation[5,6]. Provisional 2021 surveillance data suggests that GC and CT infection rate increases persisted in S.C. after the start of the COVID-19 pandemic. Despite a 4% decrease in the GC infection rate from 2020 to 2021 (from 316.8 to 302.9 per 100,000), the 2021 GC infection rate was 9% higher than that observed in 2019 prior to the COVID-19 pandemic (an increase from 278.6 to 302.9 per 100,000). Although the CT infection rate decreased 8% from 2019 to 2020 (from 704.6 to 646.5 per 100,000), the 2021 CT infection rate was 7% higher than that observed a year prior in 2020 during the first year of the COVID-19 pandemic (an increase from 646.5 to 689.0 per 100,000).

Though STIs can affect anyone, 2021 provisional surveillance data reveal that adolescents and young adults as well as racial/ethnic groups continue to be disproportionately impacted by GC and CT infection in S.C. Moreover, GC and CT infection rates continue to differ for males and females. Among cases for which gender was reported in 2021, GC infection rates were highest among males, who comprised over half (52%) of GC cases. African American males accounted for 44% of all GC cases. Conversely, 2021 CT infection rates were highest among females, who accounted for almost two-thirds (65%) of CT cases. African American females accounted for 21% of all reported CT cases.

In 2021, GC and CT infection rates were highest among individuals 15-29 years of age and African Americans. Persons 15-29 years of age represented 82% of CT cases and just over two-thirds (69%) of GC cases reported. Regarding race/ethnicity, the GC rate among African Americans (490.5 per 100,000) was 6-fold and 9-fold higher than Whites (75.7 per 100,0000) and Hispanics (52.5 per 1000,000), respectively. The CT rate among African Americans (883.4 per 100,000) was 5-fold and 3-fold higher than Whites (176.2 per 100,000) and Hispanics (270.9 per 100,000), respectively.

Of note, the COVID-19 pandemic impacted trends in diagnosed and reported STIs as well as data collected through STI surveillance activities; thus, data reported for the years 2020 and 2021 should be interpreted with caution.[7] Data presented in this report are provisional and subject to historic updates as continual surveillance data is received by DHEC.

Recommendations for Health Care Providers

Gonorrhea and chlamydia infection control requires a combination of clinical and public health interventions. As such, SC DHEC recommends the following to health care providers:

- **Take a sexual history during routine health care visits and with patients that exhibit STI signs or symptoms.** A sexual history helps to assess a person's STI risk and guide STI testing and risk reduction strategies.
- **Screen for gonorrhea and chlamydia according U.S. Preventive Services Task Force (USPSTF) recommendations and considerations.**

Gonorrhea & Chlamydia Screening Recommendations and Considerations	
Women	• Sexually active women under 25 years of age, and those 25 years and older if at increased infection risk* (annually) • Retest 3 months after treatment • Pharyngeal gonorrhea screening as well as rectal gonorrhea and chlamydia screening can be considered in females based on reported sexual behaviors and exposure, through shared clinical decision between the patient and the provider.
Pregnant Women	• All pregnant women under 25 years of age, and those 25 years of age and older if at increased infection risk* • Retest during the 3rd trimester for women under 25 years of age or at risk* • Pregnant women with chlamydial infection should have a test of cure 4 weeks after treatment and be retested within 3 months. • Pregnant women with gonorrhea should be retested within 3 months of treatment.
Men who Have Sex with Women	• Consider chlamydia screening young men in high prevalence clinical settings (STI/sexual health clinic, correctional facilities, adolescent clinics). • There is insufficient evidence for gonorrhea and chlamydia screening among heterosexual men who are at low risk of infection.
Men who have Sex with Men (MSM)	• At least annually in sexually active MSM at sites of contact (urethra, rectum, pharynx) regardless of condom use • Every 3 to 6 months if at increased risk (e.g., MSM taking HIV pre-exposure prophylaxis (PrEP), those with HIV infection, or if they or their sex partners have multiple partners)
Transgender and Gender Diverse Persons	• Adapt screening recommendations based on anatomy (i.e., annual, routine screening for gonorrhea and chlamydia in cisgender women less than 25 years old should be extended to all transgender men and gender diverse people with a cervix. If over 25 years old, screen for chlamydia if the cervix is present and screen for gonorrhea if at increased risk*). • Consider pharyngeal and rectal screening for gonorrhea and rectal screen for chlamydia based on reported sexual behaviors and exposure.
Persons with HIV	• For sexually active individuals, screen at first HIV evaluation, and at least annually thereafter. • More frequent screening might be appropriate depending on individual risk behaviors and the local epidemiology.

*Per the USPSTF, women 25 years or older are at increased risk for chlamydial and gonococcal infections if they have a new partner, more than one sex partner, a sex partner with concurrent partners, or a sex partner who has an STI; practice inconsistent condom use when not in a mutually monogamous relationship; a previous or coexisting STI; have a history of exchanging sex for money or drugs; or history of incarceration.

- **Treat GC and CT infection per The Centers for Disease Control and Prevention (CDC) Sexually Transmitted Infections Treatment Guidelines, 2021.** The STI Treatment Guide mobile app, pocket guide, and wall chart are available for download.

Gonococcal Infection†€	Recommended Regimen	Alternative Regimen
Uncomplicated infection of the **cervix, urethra and rectum** (adults and adolescents)	**Ceftriaxone** **500 mg** IM in a single dose for persons <150 kg; OR **1g** IM in a single dose for persons ≥150 kg	**If cephalosporin allergic:** **Gentamicin** 240 mg IM in a single dose **PLUS** **Azithromycin** 2g orally in a single dose If ceftriaxone administration is not available or feasible: Cefixime 800 mg orally in a single dose
Uncomplicated infection of the **pharynx**‡ (adults and adolescents)	**Ceftriaxone** **500 mg** IM in a single dose for persons <150 kg; OR **1g IM** in a single dose for persons ≥150 kg	**Ceftriaxone monotherapy is the only recommended treatment regimen for pharyngeal GC infection.** Consult with an infectious disease specialist or an STI clinical expert with the STD Clinical Consultation Network for guidance with clinical management of persons with pharyngeal GC infection who are cephalosporin allergic.
Pregnancy	**Ceftriaxone** **500 mg** IM in a single dose	**If cephalosporin allergic:** Consult with an infectious disease specialist or an STD clinical expert such as the STD Clinical Consultation Network. Gentamicin use is cautioned during pregnancy because of risk for neonatal birth defects, nephrotoxicity, or ototoxicity.

†If chlamydia infection has not been excluded, also treat for chlamydia with Doxycycline 100 mg orally twice daily for 7 days (if pregnant, treat with Azithromycin 1g orally in a single dose).
€Persons treated for gonococcal infection should be retested 3 months after treatment regardless of whether they believe their sex partners were treated.
‡Any person with pharyngeal gonorrhea should return 7–14 days after initial treatment for repeat testing (test of cure).

Chlamydial Infection£	Recommended Regimen	Alternative Regimen
Adults and adolescents	Doxycycline 100 mg orally 2 times/day for 7 days	Azithromycin 1g orally in a single dose **OR** Levofloxacin 500 mg orally once daily for 7 days
Pregnancy¶	Azithromycin 1g orally in a single dose	Amoxicillin 500 mg orally 3 times/day for 7 days

£Persons treated for chlamydia infection should be retested 3 months after treatment regardless of whether they believe their sex partners were treated.
¶Test of cure (repeat testing) approximately 4 weeks after therapy completion is recommended to ensure infection eradication.

- **Evaluate, test and presumptively treat sex partners who had sexual contact during the 60 days preceding the patient's gonorrhea or chlamydia symptom onset or diagnosis**. Most recent sex partners should also be evaluated, tested and

presumptively treated even if the time of last sexual contact occurred more than 60 days before the patient's symptom onset or diagnosis.

- **Healthcare providers who are unable to evaluate, test or treat individuals and their sex partners for STIs should contact DHEC Partner Services.** DHEC Partner Services conduct confidential partner notification services and link individuals to testing, treatment and STI/HIV risk reduction services at local health departments. Contact the DHEC Partner Services Region Field Operations Manager for the public health region in which the patient resides (preferred). Alternatively, contact the DHEC Partner Services State Program Manager.

- **Advise all patients diagnosed with gonorrhea or chlamydia that they *may* be contacted by a DHEC staff person for routine public health follow up** regarding confidential identification, notification, testing and treatment of sex and at-risk partners. Encourage patients to engage with DHEC staff when contacted.

- **Report all gonorrhea and chlamydia cases** (suspected, diagnosed, and positive laboratory results) **to DHEC as outlined in the South Carolina List of Reportable Conditions within 3 business days.** Reports can be submitted via:
  - Electronic Lab Reporting (ELR) or DHEC's secure electronic reporting system (SCIONx) For inquiries about ELR, contact MUHELPDESK@dhec.sc.gov. For inquiries about SCIONx or other electronic reporting options, contact SCIONHELP@dhec.sc.gov.
  - Mailing a DHEC 1129 Disease Reporting Form in a confidential envelope to: Division of Surveillance, Assessment and Evaluation; Mills/Jarrett Complex; 2100 Bull Street, Columbia SC 29201; or
  - Phone: 1-800-277-0873

- To schedule an appointment for STD/HIV services at a DHEC county health department, call 1-855-472-3432 or visit www.scdhec.gov/health/health-public-health-clinics.

DHEC contact information for reportable diseases and reporting requirements

Reporting of gonorrhea (*Neisseria gonorrhoeae*) and chlamydia (*Chlamydia trachomatis*) is consistent with South Carolina Law requiring the reporting of diseases and conditions to your state or local public health department. (State Law # 44-29-10 and Regulation # 61- 20) as per the DHEC 2023 List of Reportable Conditions available at: https://scdhec.gov/health-professionals/south-carolina-list-reportable-conditions.

Federal HIPAA legislation allows disclosure of protected health information, without consent of the individual, to public health authorities to collect and receive such information for the purpose of preventing or controlling disease. (HIPAA 45 CFR §164.512).

DHEC Partner Services Contact Information

Region Field Operations Managers

- **Lowcountry**
  Allendale, Bamberg, Beaufort, Berkeley, Calhoun, Charleston, Colleton, Dorchester, Hampton, Jasper, Orangeburg
  Robert Glover
  Office: **(843) 412-7316**
  Email: **gloverrl@dhec.sc.gov**

- **Midlands**
  Aiken, Barnwell, Chester, Edgefield, Fairfield, Lancaster, Lexington, Kershaw, Newberry, Richland, Saluda, York
  Kathy George
  Office: **(803) 745-5047**
  Email: **georgekm@dhec.sc.gov**

- **Pee Dee**
  Clarendon, Chesterfield, Darlington, Dillon, Florence, Georgetown, Horry, Lee, Marion, Marlboro, Sumter, Williamsburg
  Connie Cooper
  Office: **(843) 250-0638**
  Email: **cooperca@dhec.sc.gov**

- **Upstate**
  Abbeville, Anderson, Cherokee, Greenville, Greenwood, Laurens, McCormick, Oconee, Pickens, Spartanburg, Union
  Tammy Lyons
  Office: **(864) 227-5979**
  Email: **lyonstc@dhec.sc.gov**

State Program Manager

Bernard Gilliard
Office: **(803) 898-0452**
Email: **gilliab@dhec.sc.gov**

References

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2. Workowski, K. A., Bachmann, L. H., Chan, P. A., Johnston, C. M., Muzny, C. A., Park, I., Reno, H., Zenilman, J. M., & Bolan, G. A. (2021). Sexually Transmitted Infections Treatment Guidelines, 2021. MMWR Recomm Rep. 2021, 70(4).
3. US Preventive Services Task Force. (2021). Screening for Chlamydia and Gonorrhea: US Preventive Services Task Force Recommendation Statement. *JAMA*. 326(10), 949–956.
4. Centers for Disease Control and Prevention. (2021, April 13). *Reported STDs Reach All-Time High for 6th Consecutive Year*. https://www.cdc.gov/nchhstp/newsroom/2021/2019-std-surveillance-report-press-release.html#:~:text=The%20newly%20released%202019%20STD,STDs%20between%202015%20and%202019.
5. Centers for Disease Control and Prevention. (2023, April). *2021 STD Surveillance Report State Ranking Tables*. Table 2. Chlamydia — Reported Cases and Rates of Reported

Cases by State, Ranked by Rates, United States, 2021. https://www.cdc.gov/std/statistics/2021/tables/2.htm .
6. Centers for Disease Control and Prevention. (2023, April). *2021 STD Surveillance Report State Ranking Tables*. Table 7. Gonorrhea — Reported Cases and Rates of Reported Cases by State, Ranked by Rates, United States, 2021. https://www.cdc.gov/std/statistics/2020/tables/2020-STD-Surveillance-State-Ranking-Tables.pdf
7. Centers for Disease Control and Prevention. (2022, July). *Sexually Transmitted Disease Surveillance: Preliminary 2021 Data*. https://www.cdc.gov/std/statistics/2021/default.htm?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fstd%2Fstatistics%2F2020%2Fpreliminary2021.htm

Categories of Health Alert messages:

Health Alert	Conveys the highest level of importance; warrants immediate action or attention.
Health Advisory	Provides important information for a specific incident or situation; may not require immediate action.
Health Update	Provides updated information regarding an incident or situation; unlikely to require immediate action.
Info Service	Provides general information that is not necessarily considered to be of an emergent nature.