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Authors

Sawyer, Sydney

Lu, Tien

Gaylor, Kelsey

et al.

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Screening of *Chlamydia trachomatis* in Pregnant Patients in the Emergency Department: A Pilot Study

University of California, Davis Department of Emergency Medicine



Sydney Sawyer RN BSN, Tien Lu BS, Kelsey Gaylor BS, Miranda Lowe BS, Nancy Fong BS, Nicolas Sawyer MD, MBA

Introduction

- The overall rate of Chlamydia trachomatis in pregnant women in the United States was found to be 1843 per 100,000 births from 2016 to 2018 and had a 2% increase from 2016 to 2018.
- Untreated Chlamydia infection of the cervix in pregnant women can be transmitted vertically and lead to preventable adverse birth outcomes including preterm delivery, low birth weight, neonatal conjunctivitis, and neonatal pneumonia.
- Current recommendations from the CDC include screening of all pregnant women <25 years of age and older pregnant women at increased risk for infection at the first prenatal visit, in addition to rescreening in the third trimester if <25 years of age or if the patient is at continued high risk.
- The emergency department (ED) is a point of contact for prenatal care, especially for many patients who have not yet seen a provider or may be unable to; however, no formal guidelines from the American College of Emergency Physicians (ACEP) exist as to when to screen for chlamydia in the ED setting.

Objectives

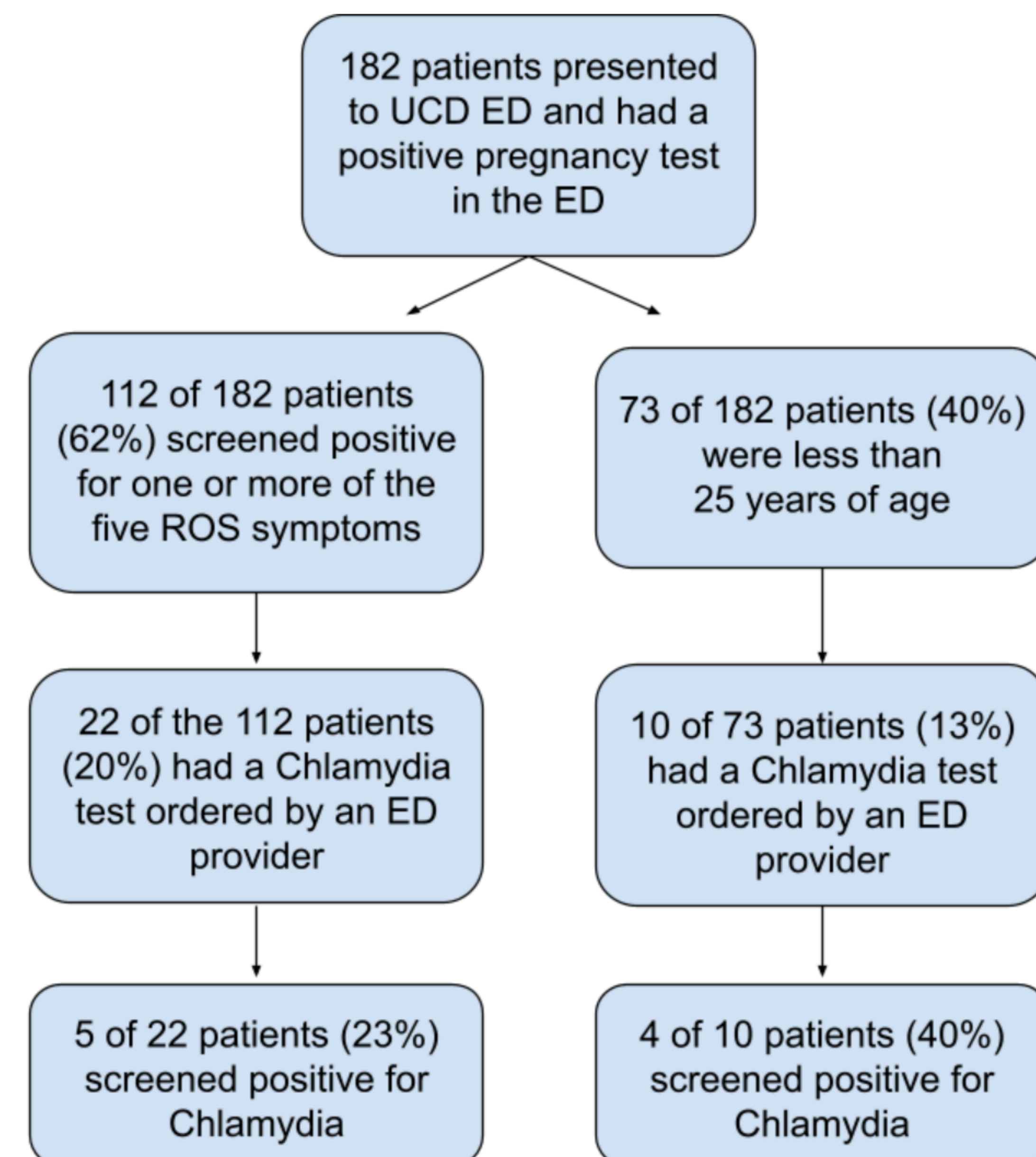
- To determine if emergency department providers are screening patients with positive pregnancy tests for chlamydia according to CDC guidelines
- To examine patient characteristics that may help lead to developing criteria for screening for chlamydia in pregnant patients in the ED setting

Methods

- We performed a single-site, retrospective chart review of all patients presenting to UC Davis Department of Emergency Medicine between 2017 to 2020 with a positive pregnancy test.
- We used the review of systems to identify which patients screened positive with 1 or more of the following chief complaints known to be associated with Chlamydia infection: lower abdominal pain, vaginal discharge, gastrointestinal upset, vaginal bleeding, and/or urinary symptoms.
- Data collected included chief complaint, review of systems outcomes, whether Chlamydia testing was performed and subsequent results.

Results

Figure 1: Results Pathway



Footnotes:
 ROS: Review of System
 Chlamydia: *Chlamydia trachomatis*
 5 symptoms: abdominal pain, vaginal discharge, gastrointestinal upset, vaginal bleeding, and/or urinary symptoms.

Table 1: Characteristics of 112 Patients with >1 Symptom Associated with Chlamydia

| Variables | n (%) |
|--------------------------|----------|
| Race | |
| Black / African American | 32 (29%) |
| Asian | 11 (9%) |
| White | 32 (29%) |
| Other | 37 (33%) |
| Age Range | |
| 13-20 | 23 (21%) |
| 21-24 | 25 (22%) |
| 25-28 | 30 (27%) |
| 29-32 | 18 (16%) |
| 33-44 | 16 (14%) |

Foot note: Patient characteristics reflect the 112 patients

Figure 2: Prevalence of Top 5 Symptoms Associated with Chlamydia Infection Among the 112 Patients

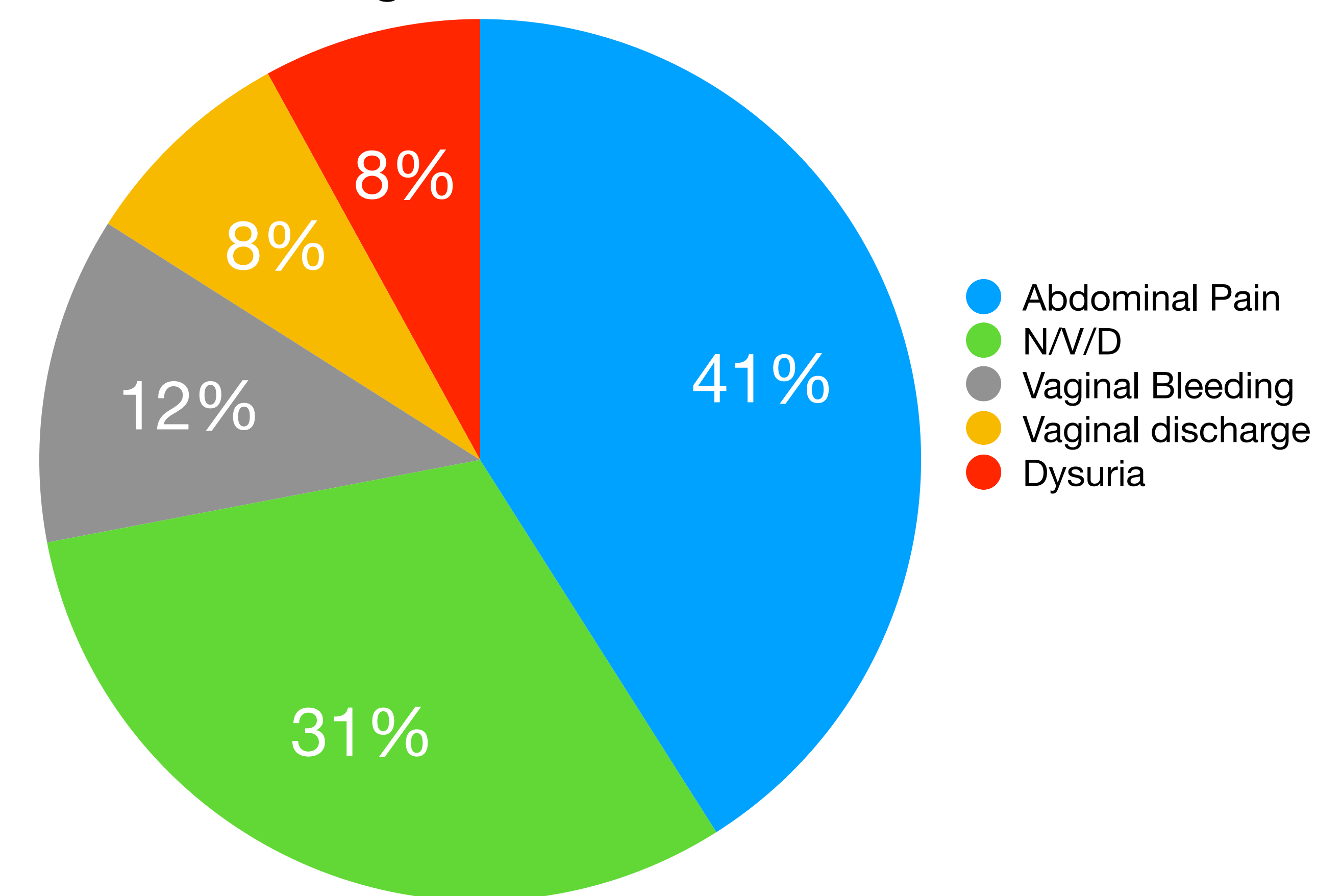
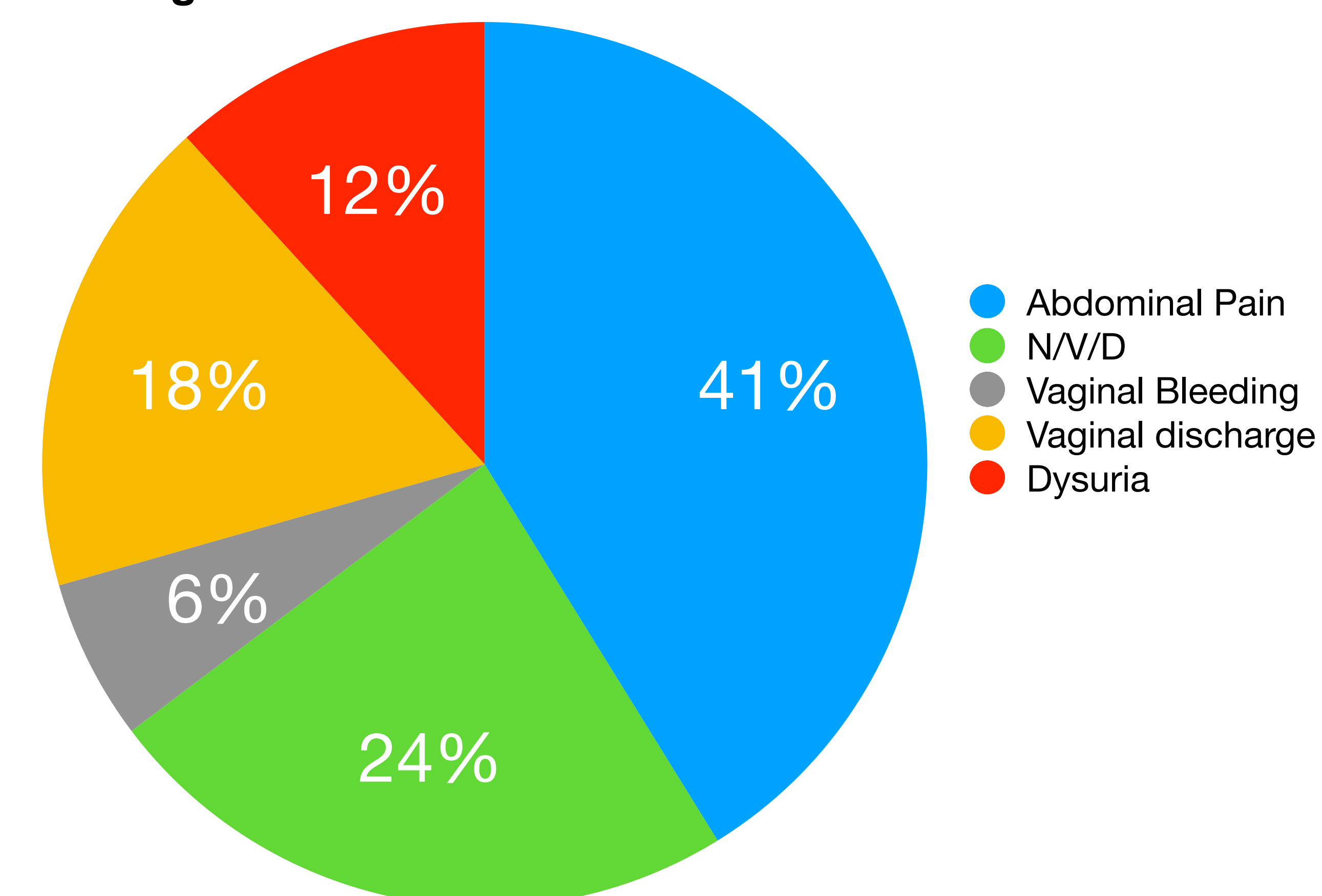


Figure 3: Prevalence of Top 5 Symptoms Associated with Chlamydia Infection Among the 22 Patients Who Were Tested



Conclusions

- ED providers are not screening patients with positive pregnancy tests for chlamydia according to CDC guidelines
- There does not seem to be a clear pattern to develop guidelines so far. This is an ongoing study and with more chart reviews and analyses, we will be able to better assess any patterns that could be helpful to develop guidelines for Chlamydia screening in pregnant patients in the ED

Limitations

- As a retrospective chart review, chart content varied per provider.
- We wanted to see if patients have had prenatal care before their ED visit, but documentation was inconsistent

Next Steps

- Assess for association of number of positive ROS associated with Chlamydia and if patients were tested
- Assess for association of high risk behavior and Chlamydia testing and if patients were tested
- Assess for association of patient insurance type and if patients were tested

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