

CROI ICAR

CROI Affiliated Event for
Italian Young Investigators

AWARDS 2024



CHAIRS:

F. Kirchhoff

(Ulm, Germany, EU)

D. Margolis

(Chapel Hill, North Carolina, USA)



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Lymphogranuloma Venereum Among Men Who Have Sex With Men: 7 Versus 21 Days Doxycycline Effectiveness

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Introduction

- Current guidelines on treatment of symptomatic lymphogranuloma venereum (LGV) caused by *Chlamydia trachomatis* serovars L1-3 recommend 21 days of doxycycline (DOXY).
- Preliminary findings support DOXY short-course antibiotic treatment for LGV. [1,2]
- The aim of this study is to evaluate the clinical and microbiologic cure of LGV after 7 or 21 days of DOXY among people with symptomatic or asymptomatic infection.

1. Simons R, *et al.* Sex Transm Dis. 2018. 2. Blanco JL, *et al.* Clin Infect Dis. 2021.



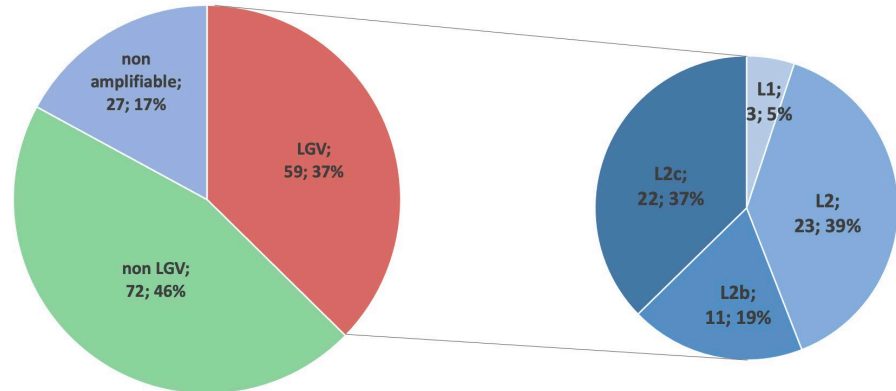
Methods

- Retrospective study on men who have sex with men (MSM) in care at the Infectious Diseases Unit of IRCCS San Raffaele Scientific Institute, Milan, Italy.
- People diagnosed with rectal or urethral *Chlamydia trachomatis* between 2015 and 2022 were included.
- MSM were treated with 7 or 21 days of DOXY according to referring physician choice.
- Nucleic acid amplification test (NAAT) with sequencing serovar determination was used. Only individuals with available sequencing results were considered.
- Only people with available *Chlamydia trachomatis* test of cure (TOC) after treatment were included, which was performed according to clinical practice.
- Microbiologic cure (MC) after DOXY treatment was defined as having a negative TOC (eradication), or a positive TOC with a different *Chlamydia trachomatis* genotype (re-infection).
- Proportions of MC according to presence of symptoms and treatment durations were compared using exact binomial test. Comparisons were performed either including (counted as failure of cure; worst scenario) or excluding (exclusion scenario) samples with positive TOC with non-amplifiable sequencing.



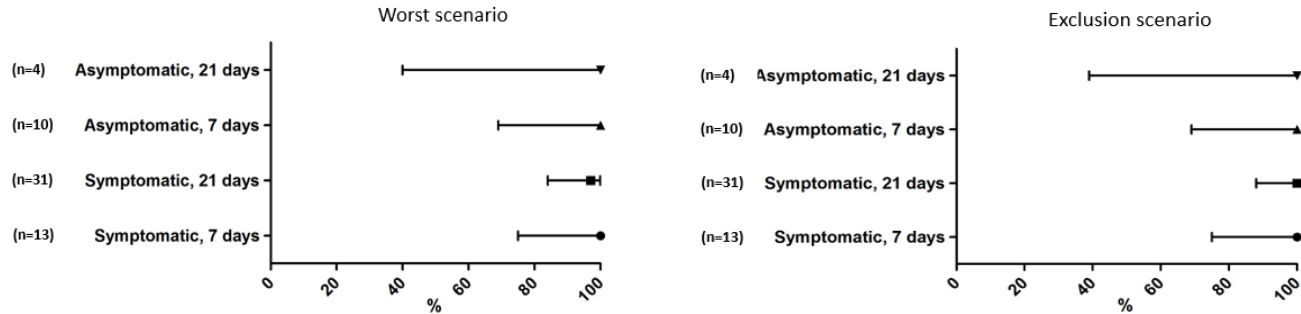
Results

- Overall, 158 MSM were included: distribution of *Chlamydia trachomatis* serovars in Figure.
- Among people with LGV, rectal infection was detected in 56 (95%) people, urethral in 1 (2%), and concomitant rectal and urethral infections in 2 (3%). People with symptomatic LGV were 45 (76%): 44 with rectal infection and 1 with urethral.
- Overall, 23 (40%) received 7 days of DOXY and 36 (60%) 21 days, according to physician choice.
- Median age was 40 (IQR=34-48) years; 95% MSM were Caucasian, 3% Hispanic, and 2% Caribbean. PLWH were 53 (90%), with a median CD4⁺ lymphocytes count of 759 cells/ μ L (IQR=622-930) at time of LGV diagnosis.
- Median time to TOC was 0.66 (IQR=0.3-1.4) years since LGV diagnosis. No difference in time to TOC was found when comparing people treated with 7 or 21 days of DOXY among both symptomatic (0.81, 0.56-1.21 vs 0.97, 0.26 vs 1.80, p=0.960) and asymptomatic cases (0.26, 0.18-0.29 vs 1.26, 0.34-2.07, p=0.203).



Results

- All symptomatic MSM were clinically cured, with observed resolution of symptoms after treatment with DOXY regardless of duration.
- Microbiologic cure (MC) occurred in 58 people (98%): 90% had a negative TOC and 8% had a non-LGV *Chlamydia trachomatis* re-infection at time of TOC. Proportions of MC among MSM with LGV, according to presence or absence of symptoms, who received 7 or 21 days of DOXY treatment is shown in Figure.



- No significant differences of %MC was observed also between LGV and non-LGV infections in both scenarios either among symptomatic (worst scenario: 100%MC vs 88%, $p=0.62$; exclusion scenario: 100%MC vs 100%) or asymptomatic people (worst scenario: 100%MC vs 81%, $p=0.32$; exclusion scenario: 100% vs 94%, $p=0.99$) treated with 7 days of DOXY.



Conclusions

- Among MSM with LGV or non-LGV *Chlamydia trachomatis* infection, comparable clinical and microbiologic cure proportions were found after 7 or 21 days of DOXY, regardless of presence of symptoms.
- These data support the use of DOXY short treatment course for *Chlamydia trachomatis* treatment.



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