

A REVIEW ON THE COMPREHENSIVE BURDEN OF GONORRHOEA IN EUROPE

Digital poster
Supplemental data
Narrated summary



SCAN ME

Audio File

Zeki Kocaata¹, Linda Hortobagyi², Shahina Begum¹

¹GSK, Value Evidence & Outcomes, Wavre, Belgium; ²Freelance c/o GSK, NA, London, United Kingdom

AIMS

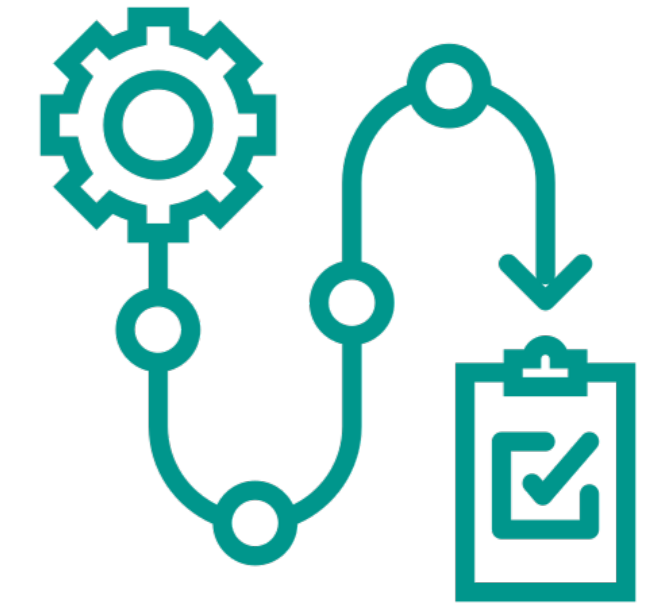
▶ To review the **comprehensive medical, humanistic and economic burden of gonorrhoea in Europe.**



METHODS

Targeted literature review (TLR) on the burden of gonorrhoea. PubMed searches with screening based on:

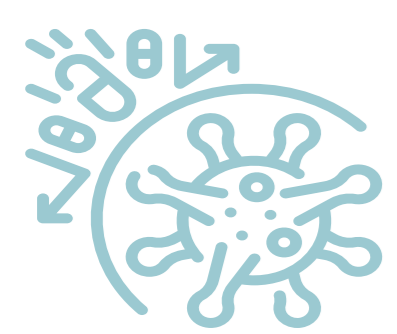
- ▶ **POPULATION:** *Neisseria gonorrhoeae* infection
- ▶ **INTERVENTIONS AND COMPARATORS:** no restrictions
- ▶ **OUTCOMES:**
 - **CLINICAL** (including sequelae and AMR)
 - **HUMANISTIC** (Quality Of Life [QOL], caregiver impact)
 - **ECONOMIC** (costs, resources, cost-effectiveness, public health, preference studies)
- ▶ **STUDIES:** observational, economic, systematic reviews, meta-analyses, indirect treatment comparison
- ▶ **LIMITS:** English; 2012-22; AU, FR, DE, IT, ES, UK, US*
- ▶ **FOCUS OF POSTER:** local data from FR, DE, IT, ES, and UK only. (Grey literature and EU/Global-level studies excluded.)



RESULTS

FIVE MEDICAL STUDIES^{9,10,12-14} AND ONE HUMANISTIC BURDEN STUDY¹⁵ IDENTIFIED.

EVIDENCE ON MEDICAL BURDEN



AMR

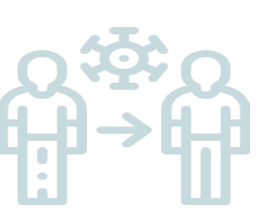
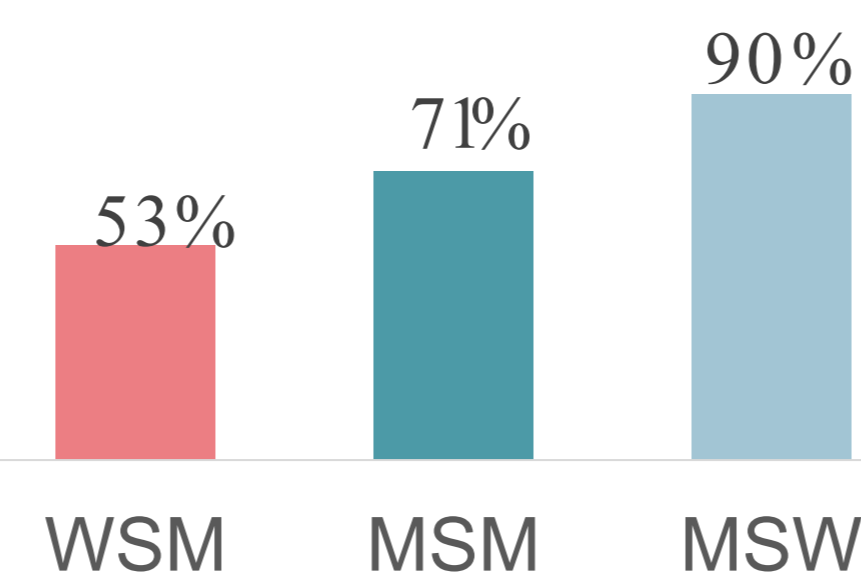
2 German studies (nationwide⁹ & Dresden¹⁰) with AMR data in gonorrhoea:

- ▶ Most gonorrhoea cases (**81%**¹⁰) in men.^{9,10}
- ▶ Infected **women were younger than men**^{9,10} (mean **21y vs 33y**¹⁰).
- ▶ High rates of non-susceptibility to ciprofloxacin, tetracyclines, penicillin and trimethoprim.^{9,10}
- ▶ Emerging **azithromycin resistance (5.6%** of samples) in the nationwide study⁹ threatens European (2020) guidelines of dual ceftriaxone + azithromycin.¹¹



RISK FACTORS AND PREVALENCE

- ▶ One German study¹² (N=2,303 MSM): prevalence in **MSM (8.9%)** increased among **HIV-negative** pre-exposure prophylaxis (PrEP) users (**14.8%**).
- ▶ One French study¹³ (N=3,409):
 - ▶ Most patients were **symptomatic**.
 - ▶ HIV-coinfections mostly seen in **MSM (13.9%)**.



DISEASE TRANSMISSION

- ▶ One UK study¹⁴ (N=907, 93% men, median age 31 y):
 - ▶ **12%** of samples collected >1 year apart were **genetically related**, suggesting long-term asymptomatic carriage of gonorrhoea.

	MEDICAL BURDEN	HUMANISTIC BURDEN	ECONOMIC BURDEN
GERMANY	EVIDENCE IDENTIFIED (3 studies) ^{9,10,12}	NOT IDENTIFIED	NOT IDENTIFIED
FRANCE	EVIDENCE IDENTIFIED (1 study) ¹³	NOT IDENTIFIED	NOT IDENTIFIED
UNITED KINGDOM	EVIDENCE IDENTIFIED (1 study) ¹⁴	EVIDENCE IDENTIFIED (1 study) ¹⁵	NOT IDENTIFIED
ITALY	NOT IDENTIFIED	NOT IDENTIFIED	NOT IDENTIFIED
SPAIN	NOT IDENTIFIED	NOT IDENTIFIED	NOT IDENTIFIED
	DATA GAPS Data lacking on: ▶ Infections per anatomical site ▶ Sequelae ▶ AMR beyond MSM ▶ co-infections beyond HIV	DATA GAPS The only study included just 2 patients at baseline (no follow-up data).	DATA GAPS No studies captured in relevant geographies.

EVIDENCE ON HUMANISTIC BURDEN



QUALITY OF LIFE

- ▶ Another UK study¹⁵ assessed **QOL** and impact of a symptomatic genital infection diagnosis in men:
 - ▶ Only **n=2** gonorrhoea patients included at baseline (no follow-up data).

Background

- ▶ Gonorrhoea is the 2nd most common bacterial sexually transmitted infection globally and its incidence is increasing.¹
- ▶ Emerging antimicrobial resistance (AMR) renders many classes of antibiotics ineffective, impacting patient burden.²
- ▶ Men-who-have-sex-with-men (MSM) and young people aged 15-25 years (y) are disproportionately affected.^{3,4}
- ▶ The 4-component meningococcal B vaccine, 4CMenB, was shown to provide cross-protection against gonorrhoea⁵⁻⁸, raising hopes for future targeted gonorrhoea prevention.
- ▶ Understanding of comprehensive disease burden for different population segments is needed to identify potential target populations for prevention.

Conclusions

- ▶ Despite limitations in study scope, this TLR shows **SIGNIFICANT LOCAL DATA GAPS** on the comprehensive disease burden in all areas, with some countries (ITALY and SPAIN) without any local disease burden studies identified.
- ▶ To understand the role and target of **emerging prevention options for gonorrhoea** (e.g., vaccination for adolescents and young adults and/or based on behaviour/risk), **more local disease burden evidence is needed.**

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