

# Management of tick bites and suspicion of Lyme disease in Belgian primary care : compliance with national guidelines

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## Conclusion

GPs were not completely compliant with current national guidelines. Serology was ordered by GPs when patients had EM as symptom (32.8%) against national recommendations. Furthermore, some GPs prescribed antibiotics to asymptomatic patients. Compliance and knowledge regarding (national) guidelines should be investigated further.

Lyme disease is the most common tick-borne disease in Europe. Diagnosis is confirmed upon Erythema Migrans (EM) appearance, or serology testing. Suspicion of Lyme disease linked to other clinical manifestations than EM should be verified by serology. Only symptomatic confirmed cases require prescription of antibiotics.

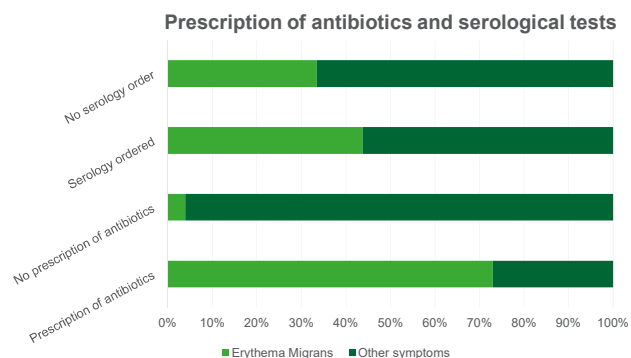
## Methods

- Data collected by the Belgian network of Sentinel General Practices (SGP)
- 6-year retrospective population-based study
- Data collected from 2015 to 2020
- General Practitioners (GP) report cases of tick bites and/or suspected Lyme disease

## Results

Table 1: Patient characteristics (N= 1618)		
	N	%
Sex (patient)		
Missing	3	.
Female	774	47,9
Male	841	52,1
Age Group		
Missing	31	.
< 15	212	13,4
15 - 29	221	13,9
30 - 44	265	16,7
45 - 59	372	23,4
60 - 74	408	25,7
>= 75	109	6,9
Region		
Brussels	88	5,4
Flanders	1094	67,6
Wallonia	436	27
Country where the bite occurred		
Missing	8	.
Belgium	1202	74,7
Outside Belgium	71	4,4
Unknown	337	20,9

- 62.2% of GPs were male in the SGP network. The median age was 57
- 1618 cases were reported between 2015 and 2020. **47.9% patients were female and 52.1% male**
- Tick bites were confirmed in 75.4%** of cases. 74.7% of tick bites occurred in Belgium, in mainly three provinces: Antwerp (27.5%), Limburg (20.2%) and Luxembourg (13.3%)
- Erythema Migrans is defined as an expanding rash of minimum 5cm. Majority of patients had **Erythema Migrans (35.8%)** or no symptoms (45.8%). Other clinical manifestations, such as arthritis (4.9%), were rare



- Serology test for Lyme disease was ordered by GPs for 32.8% of patients with EM**, 83.8% of patients with arthritis, 90% of patients with neurological symptoms, 57.1% of patients with carditis, 39.6% of patients with other symptoms and 14.2% of patients without symptoms
- 92.6% of patients with EM** were prescribed antibiotics (doxycycline or amoxicillin)
- Antibiotics were prescribed 62.5% in case of arthritis, 65% for neurological symptoms, 71.4% for carditis, and **7.7% of asymptomatic patients**

## REFERENCES

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