

Prevalence of Malaria presenting to TUH and quality of care received: A Retrospective Study

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Background

- Most malaria cases in Ireland occur in African immigrants, particularly from Nigeria and are linked to travel from West Africa, peaking in summer months due to visits to friends and relatives (VFR).(1)
- Tallaght University Hospital (TUH) serves an ethnically diverse population, with a higher percentage of Black residents than the national average.(2)
- As immigration increases in Ireland (3), we aimed to assess the prevalence of malaria at TUH.
- By evaluating adherence to treatment guidelines from local TUH guidelines (4) and the London Hospital for Tropical Diseases(HTD)(5), we aimed to assess quality of care received.

Methods

- Our project was commenced after receiving approval from QI department.
- The TUH haematology lab provided data on malaria-positive blood films from 2014 to 2024.
 - TUH HIPE data was also used to identify patient cases.
 - Cases without positive films or patient records were excluded.
 - The final dataset included 80 patients.
 - Malaria severity was classified using TUH and HTD parameters: parasitaemia > 2%, <2% with schizonts, or <2% with complications detailed as per TUH adult medicines guide.
 - Medical records were reviewed to assess:
 - » Appropriate treatment
 - » Documented complications
 - » Follow-up full blood counts (FBCs) post-IV artesunate therapy
 - » Travel history, travel seasonality, and ethnicity

Results

- Among 80 cases, 62 were Plasmodium falciparum, 10 were P. ovale, 5 were vivax and 1 mixed falciparum /ovale.
- Cases peaked in 2017 (18 cases).

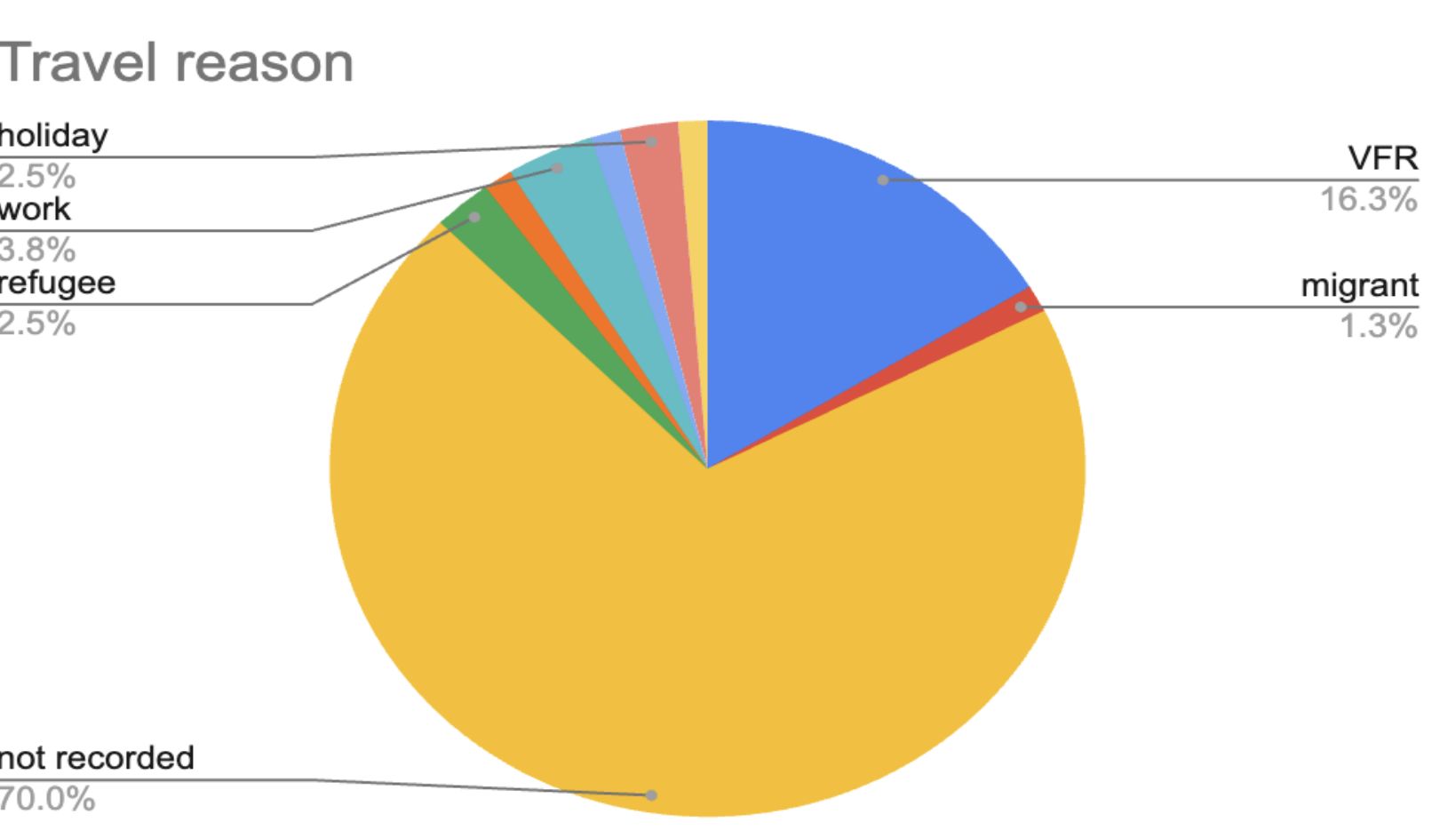
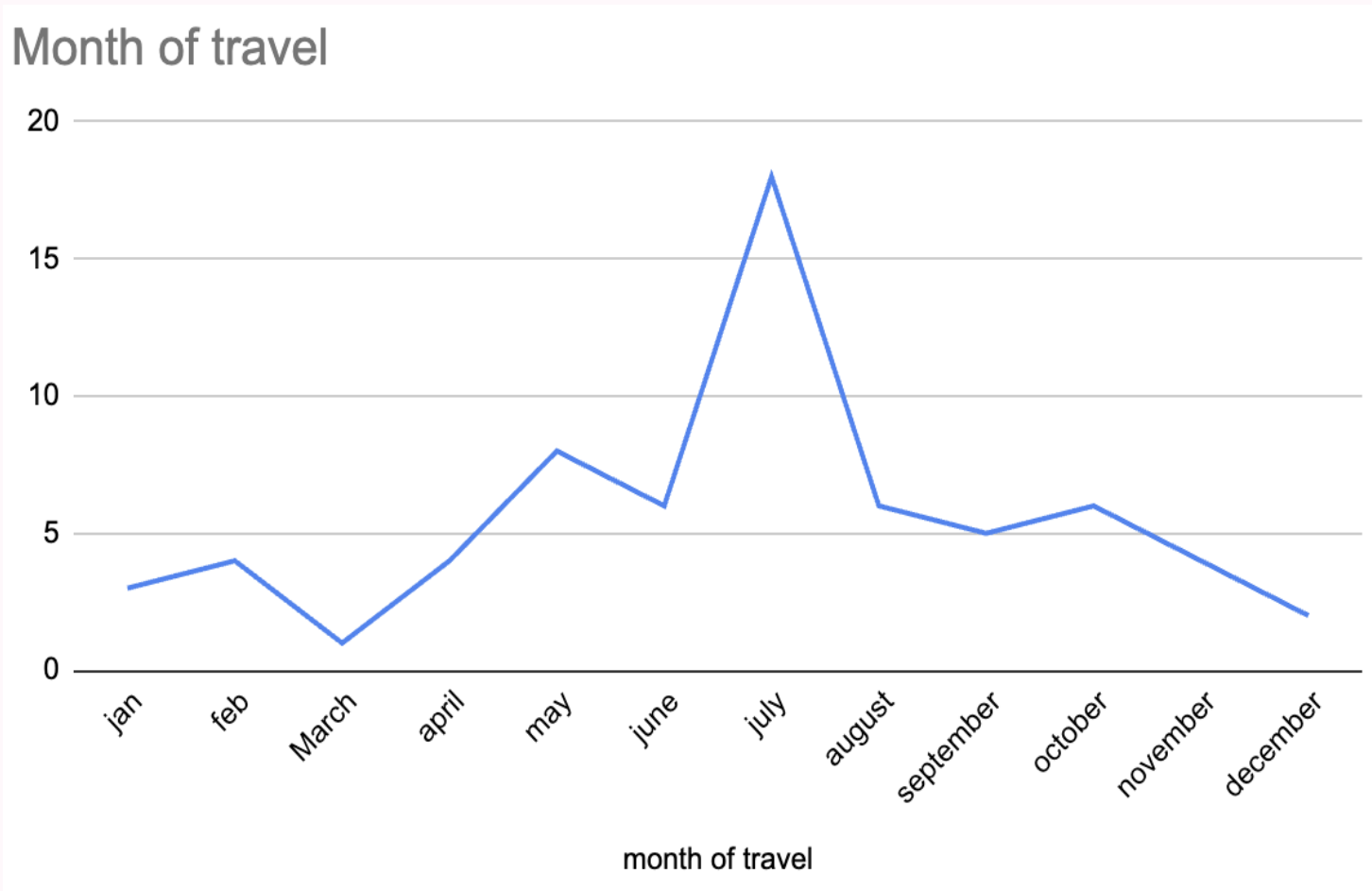
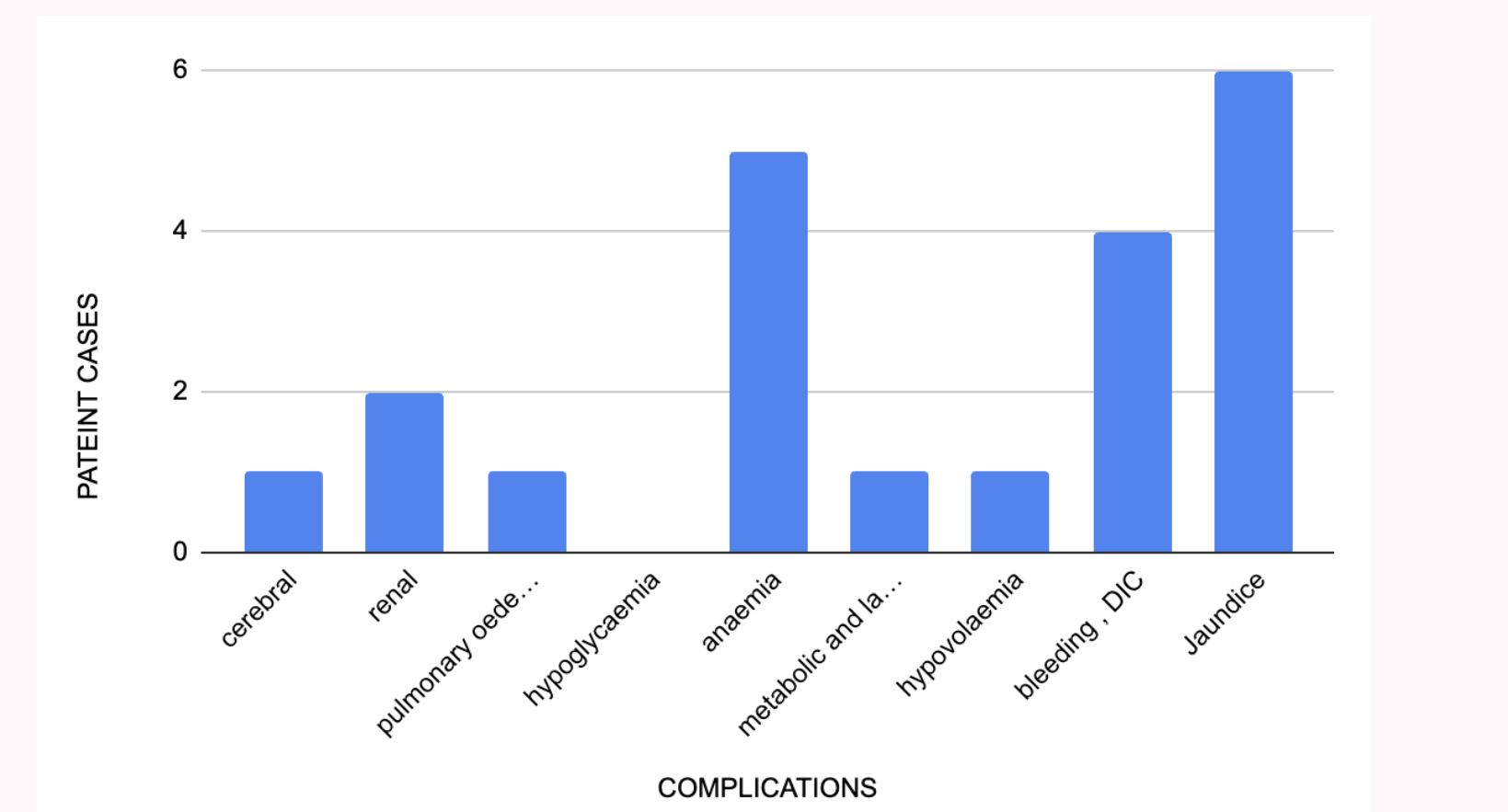
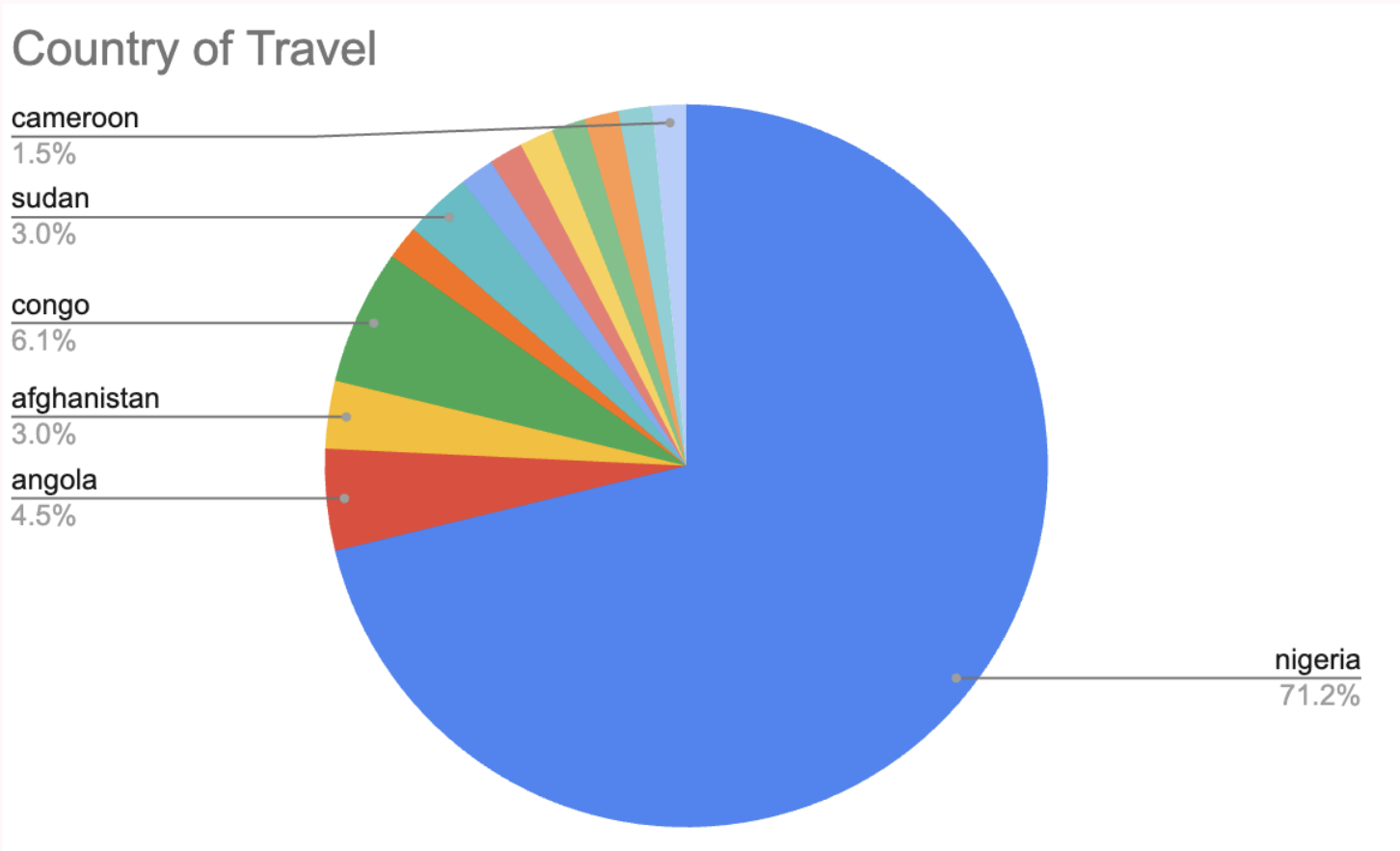
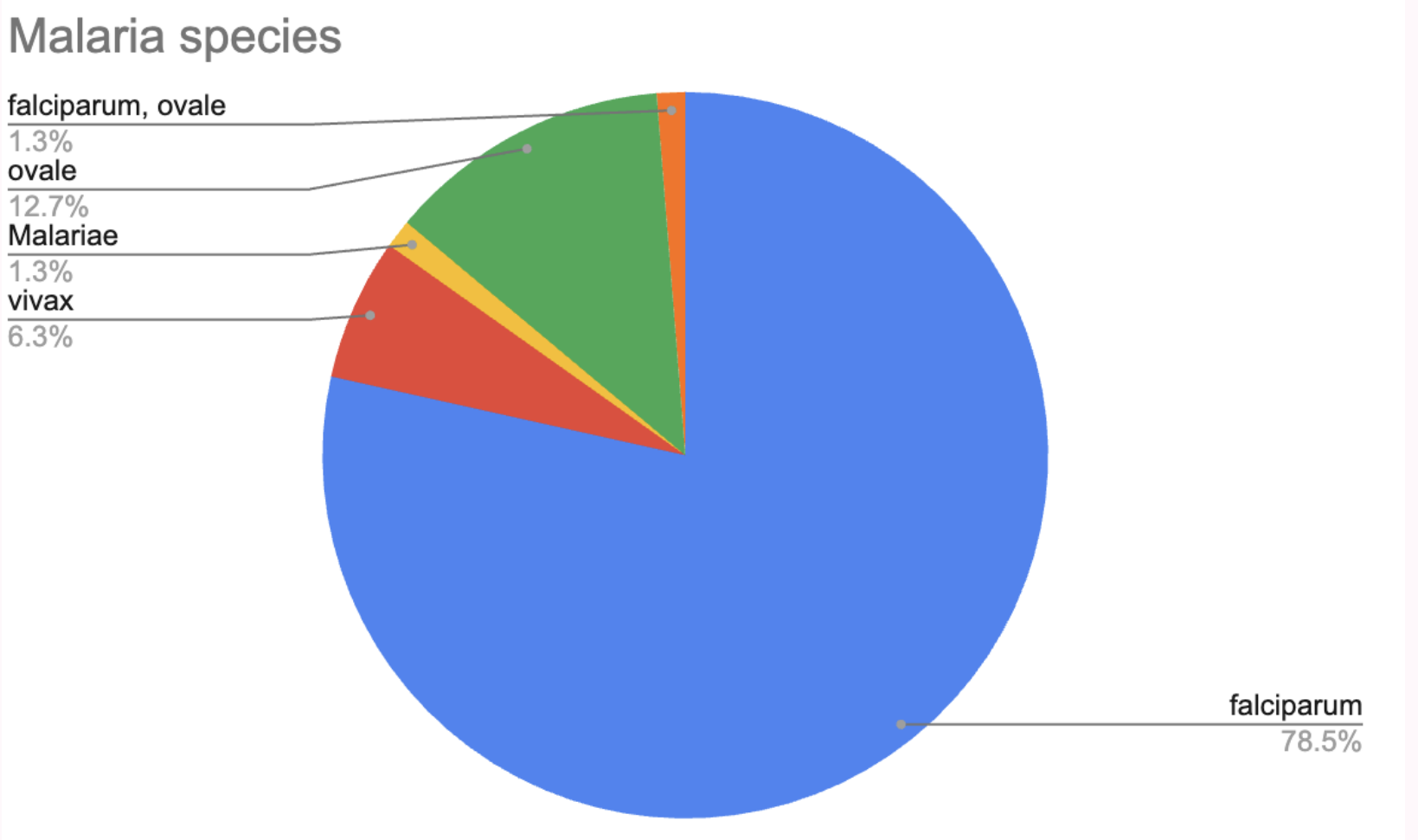
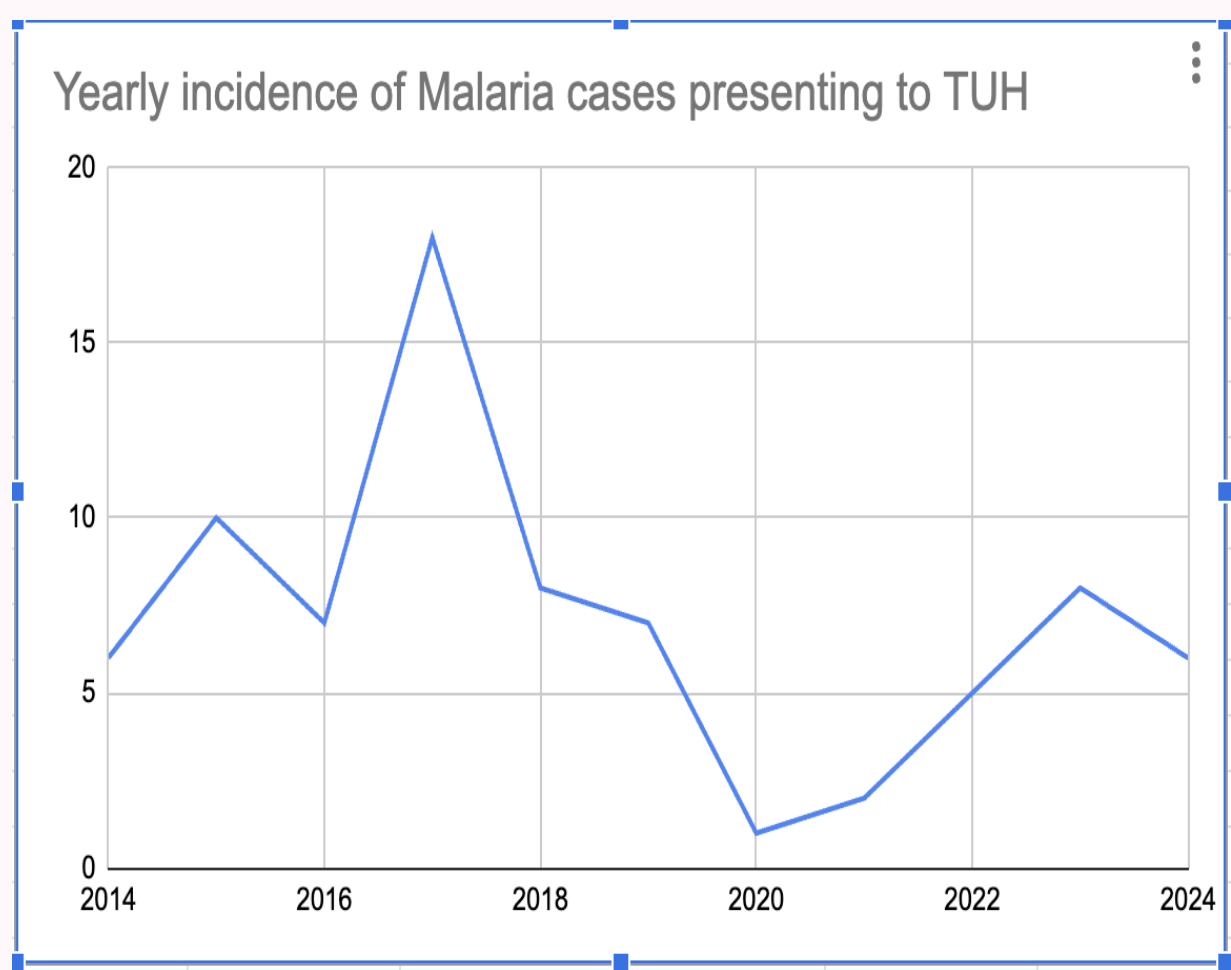
Frequency

- 24 (30 %) cases were classified as severe, yet only 16 (20 %) received appropriate treatment per TUH and HTD guidelines.
- 6 cases (7.5%) received IV artesunate despite not meeting severe criteria.
- Post-artesunate FBCS were documented in six patients (7.5%).
- Oral therapy alone was given in 44 cases (55%).
- Complications arose in 11 cases (13.8%).
- Jaundice was the most common complication

Management

- Most cases were linked to travel to Nigeria, with summer being the peak season and VFR being the most commonly documented reason. This reflects HPSC data.
- Patient ethnicity was recorded in 33 cases.

Immigration



Conclusions

Malaria at TUH is strongly linked to VFR travel among immigrants . Improvements are needed in clinical management, including better classification of severe cases, ensuring appropriate treatment, and enhancing documentation on treatment duration, follow-up FBCs, travel history, and ethnicity to support epidemiological analysis.

References

- 1 :Health Protection Surveillance Centre: Vector Borne diseases in Ireland 2022
- 2: CSO census 2022
3. CSO Population and Migration Estimates, April 2024
- 4: TUH guidelines on management of malaria
- 5: The Hospital for tropical diseases , Malaria diagnosis and treatment guideline