# Management of Giardiasis and Recurrent Giardiasis

**Initial & Recurrent Infection**-**Treat as per individual flowcharts below Pages 3-6**

Advise all patients on the following measures to prevents reinfection:

- Modes of transmission include water exposure, food contamination, person to person and faecal oral route. Therefore, strict attention to hand hygiene, using soap & water is required (not alcohol-based hand gel).
- High risk activities include handling nappies of infected children, cleaning up animal faeces, gardening, etc.
- Contact with animals (especially young animals) especially those with diarrhoea is an exposure risk; consider seeking veterinarian opinion regarding treatment. When screening households for recurrent cases it is recommended to include pets as these are common carriers or giardia in infected households.
- Avoid swimming in contaminated water: pools, lakes, rivers, ponds, Jacuzzis, etc.
- Do not return to communal swimming venues until asymptomatic for >2-weeks post-treatment.
- Consider potential sexual exposure in both males and females.

***When assessing a patient with on-going symptoms following confirmed G. lamblia infection, consider whether it could be:***

***a) Poor Adherence to Treatment Regime:***

This should always be considered if symptoms are failing to improve after a course of treatment. Longer courses of medications such as metronidazole with a side effect profile tend to have lower adherence rates.

***b) Resistance to initial therapy:***

Treatment-refractory cases of giardiasis are increasing and likely due to nitroimidazole resistance. India and Africa are the commonest sources of treatment-refractory cases, at 69.9% and 12.3% respectively, compared with only 2.7% of European cases being treatment-refractory.[1] Resistance cannot be detected in the routine microbiology laboratory, and should be determined clinically.
*See flowchart below.*

***c) Reinfection:***

If recurrence of symptoms occurs **it is recommended to screen all household and sexual contacts** for giardia as household members may have asymptomatic

infection. Pets can be a source of giardia carriage so patients should consider discussing screening with their Veterinarian.

Reinfection is common; likely due to the low infectious dose of only 10 cysts required to cause disease, the high volume of excretion of cysts from infected individuals (1-10 billion cysts/day), 15% of infected individuals are asymptomatic, and the environmental hardiness of the cysts (lasting months).

- Check history of immunosuppression: HIV (low threshold for testing), cystic fibrosis, hypogammaglobulinaemia, X-linked agammaglobulinaemia, IgA deficiency, etc.
- Consider potential sexual exposure.

***d) Post-infectious malabsorption:***

Acute giardiasis has been shown, in small studies [2] to affect lactose absorption. Lactose intolerance: may last >1 month: the primary site of G. lamblia infection is the small intestine, resulting in villous atrophy, brush border loss, loss of disaccharidase enzymes, and hence the development of temporary lactose intolerance. Consider counselling the patient on a lactose-free diet for one or more months after treatment, particularly if there are predominantly irritable bowel-like symptoms, and repeat stool testing is negative for *G. lamblia*.

# Giardia Treatment in Adults (*Excluding Pregnancy and Breastfeeding)

Giardia confirmed by stool testing

Hygiene Advice and see section on measures to prevent re-infection

**First Line Treatment:**

**Metronidazole 400mg TDS for 5-7/7**

**Recurrent or Persistent Symptoms**

Review history and repeat stool test including screening all household and sexual contacts and pets.

Treat any positive household contacts

POSITIVE

NEGATIVE

**Second Line**

**Metronidazole 400mg TDS for 5-7/**7 if failed to complete initial course and willing to complete course

**Or**

**Contact Microbiology to consider**

****Tinidazole 2g stat dose** if treatment failure or unable to adhere to metronidazole regime. Tinidazole has greater efficacy than Metronidazole due to increased adherence

Likely post infectious sequelae

Consider trial of lactose-free diet

If symptoms not resolving consider alternative diagnosis

**Third Line (Combination therapy)**

**Discuss with Microbiology to consideration of combination therapy of metronidazole or tinidazole plus albendazole**

***For patients who are pregnant or breastfeeding please discuss with a RDUH Microbiologist regarding treatment options.**

NHS
Royal Devon University Healthcare
NHS Foundation Trust

Microbiology Department

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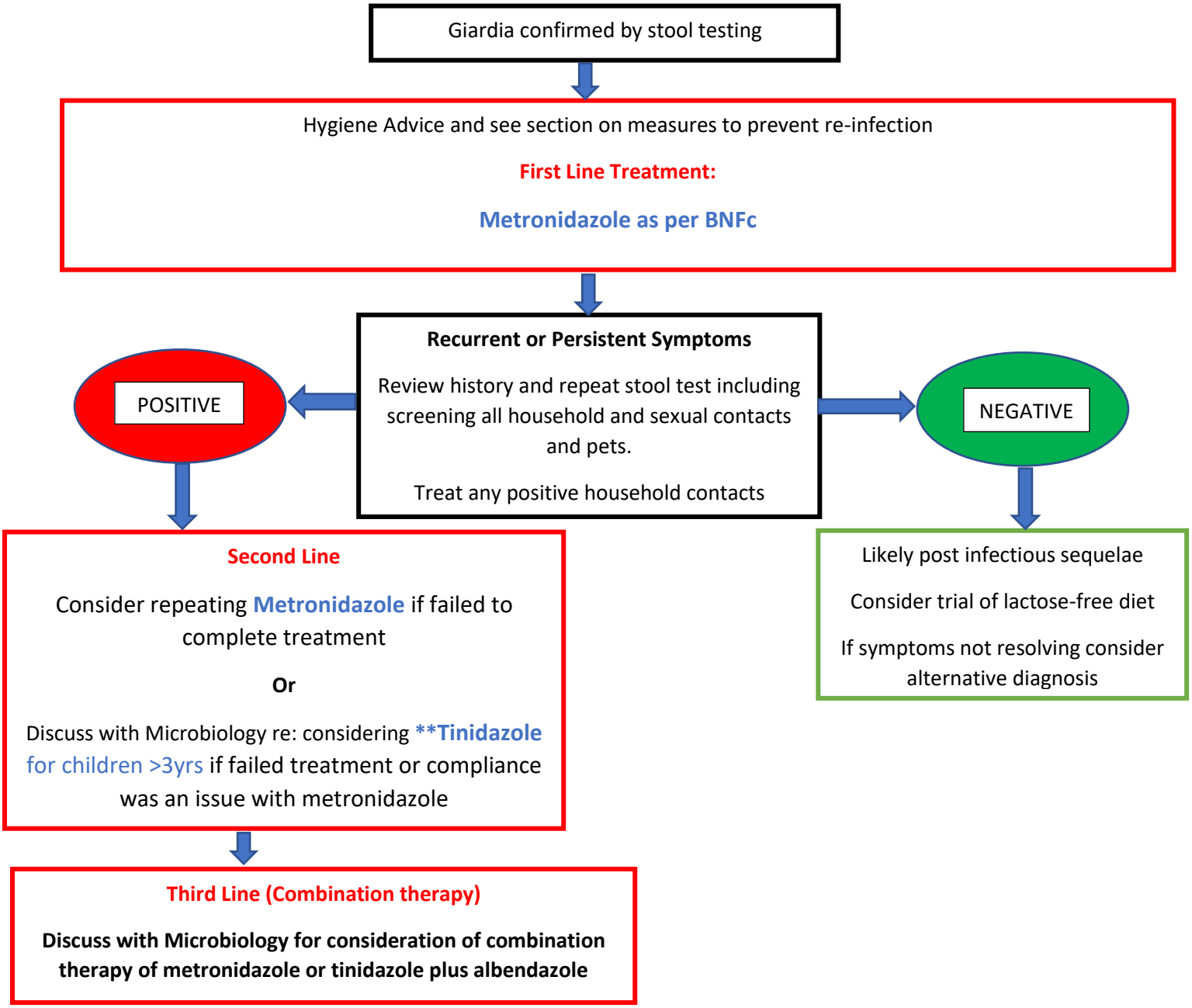
# Giardia Treatment in CHILDREN




****Tinidazole** is Unlicensed in UK and only available by special hospital order via Microbiology. Tinidazole available as tablets only but can be crushed. Albendazole available as chewable tablets

**References**

1. Clin Micro Inf 2015; 21(8): 791-6

2. Dig Dis Sci. 2005;50(2):259 n=54

3. London School of Hygiene and Tropical Medicine and Curr Op ID 2020; 33: 355-364].

4. Developed from current guidelines at London HTD via communication with Dr Gauri Godbole

5. http://www.bashhguidelines.org/media/1333/bashh-enteric-guidelines-2023.pdf

6. UpToDate Summary on Giardiasis May 2023 (literature review last updated September 2022)

7. Dynamed Summary on Giardiasis June 2023

8. Drug dosing & information: BNF, BNFc, Sanford Guide, Micromedex, Briggs