

## Algorithm for Adult Patients on a Gluten Free Diet Who Have Not Been Diagnosed with Coeliac Disease

### Introduction

At the moment the guidelines for diagnosis for coeliac disease are clear:

- 1) The patient must have had a D2 biopsy (ie: the second part of duodenum) which shows at least partial villous atrophy (Marsh IIIa criteria), for which other causes have been excluded. For “borderline” cases the first part of the duodenum (D1) can be biopsied but this is done very occasionally.
- 2) The majority of these patients will have positive coeliac serology - anti-tTG or anti-EMA but up to 3% of coeliac patients have negative coeliac serology (*NB: Anti-tTG costs £23.44 and the turnaround time 7-10 days, EMA costs £11.47 and the turnaround time is 7 days*)
- 3) A considered decision about diagnosis can be made on those patients with typical symptoms, positive serology and who respond to a gluten free diet, yet have biopsies that show changes consistent with, but not diagnostic of coeliac disease (i.e. Marsh I or II criteria). Again, care must be taken to ensure there are no other causes for the histological changes seen. Depending on assays used and the laboratory methodology some coeliac serology tests can produce false positive rates of up to 30%.

### Inappropriately on a GFF diet

There are a number of patients who are inappropriately on a Gluten Free Diet. These often fall into the following groups.

- a) Patients have had a positive blood test and been diagnosed as coeliac **without** a D2 biopsy
- b) Patients who have self-diagnosed with coeliac disease and now present having placed themselves on a GFD

It is recommended all such patients go back on a gluten containing diet prior to serology/D2 biopsy. Ideally this should be for at least 6 weeks although studies suggest 70-80% of patients will show changes after 2 weeks. It is recommended the gluten containing diet contains at least 5-10g of gluten once or twice a day for this period of time. Four slices of white bread typically contains 6-10g. (An average serving of pasta typically 5-10g.) On checking serology it is essential ALL patients have IgA levels checked. There is an association between IgA deficiency and coeliac disease (approximately 3% coeliac patients are IgA deficient – see above) and this is the most common reason for a false negative. If there is a strong suspicion of coeliac disease despite a negative serology test (e.g. family history) then referral to a specialist for consideration of a D2 biopsy may still be appropriate.

### Dermatitis Herpetiformis

There is a strong association between DH and coeliac disease so it is likely many (if not all) patients with DH will end up with a D2 biopsy. However, up to 60% of said patients will have normal D2 biopsies. Therefore GFF prescribing is available to these patients.

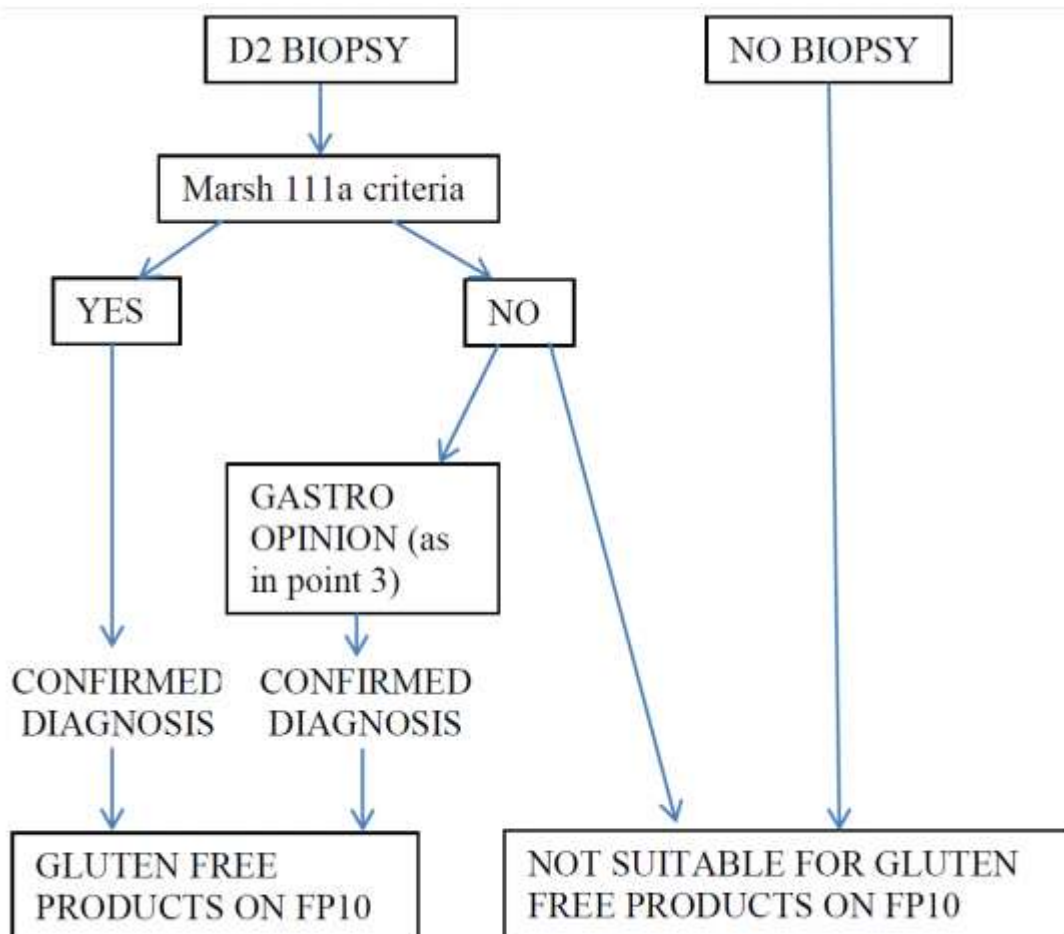
**If patients decline a biopsy**

Patients who do not want to resume gluten containing diet to allow testing or decline a biopsy are not eligible for receiving gluten free foods on prescription.

Please note that NHS Vale of York CCG does not support HLA DQ2 or DQ8 testing for a confirmation of coeliac disease, as the test is not a sufficient discriminator. Even with a positive result they are still overwhelmingly more likely to NOT have the disease.

To get gluten free bread and flour on prescription (see fig 2 for guidelines on units) in NHS Vale of York CCG the patient will need to have had a D2 biopsy with Marsh IIIa criteria or have had a considered opinion from a gastroenterologist based on histology on Marsh 1 or 11 criteria as indicated in point 3.


**Fig 1 – flowchart**



**Fig 2 - Recommended amounts per month:**

Age and sex	Number of units
child 1-3 years	10
child 4-6 years	11
child 7-10 years	13
child 11-14 years	15
child 15-18 years	18
male 19-59 years	18
male 60-74 years	16
male 75+ years	14
female 19-74 years	14
female 75+ years	12
Higher level of physical activity (any age or sex)	add 4
breastfeeding	add 4
3rd trimester pregnancy	add 1

**Fig 2 - Number of units for different foods:**

Food Item	Number of units	
400g bread/rolls/baguettes	1	
500g flour mix	2	
200g biscuits/crackers	1 (not avail)	Not commissioned. <b>Do not use</b> 
250g pasta	1 (not avail)	
500g oats	1½ (not avail)	
300g breakfast cereals	1½ (not avail)	
2 x 110-180g pizza bases	1½ (not avail)	