Hull University Teaching Hospitals (HUTH) Faecal Calprotectin Pathway

Overview Document

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Overview:

This document gives an overview to the use of Faecal Calprotectin (FC) testing as part of investigation of patients with new onset lower gastrointestinal symptoms that are typical of a diagnosis of Irritable Bowel Syndrome (IBS). The accompanying Flowchart and Guide to Managing IBS in the Community also are designed to support the management of relevant patients in the community with appropriate access to secondary services for both advice and timely referral.

Background to use of Faecal Calprotectin Testing:

The use of FC as a diagnostic test to help differentiate individuals with potential IBS from those with organic gastrointestinal disease (was first reviewed by the NICE in 2013 (1) and the data initially evaluated in a detailed systematic review and health evaluation (2), which showed a consistently high sensitivity for FC (83-100%) at a cut off of 50 µg/g but variable specificity (51-100%) (2). This showed the clear potential benefits of FCin reducing the number of normal colonoscopies in those with symptoms and as a useful tool for primary care. Use of FC as part of a clinical assessment pathway to help identify individuals with IBD in primary care has been increasingly studied. Turvill *et al.* reported a 97% negative predictive value and 40% positive predictive value for FC in primary care patients (3). Subsequently the York Faecal Calprotectin Care Pathway (YFCCP) has been further evaluated for use in primary care settings (4, 5) and incorporates the key elements of the NICE Suspected Cancer referral pathway (6) plus steps to allow repeat calprotectin testing, thus reducing immediate referrals, and referral for recurrent symptoms. Results from the main evaluation study revealed use of the YFCCP had a sensitivity of 0.94 (94%, 0.85-0.98 and specificity of 0.92 (92%, 0.98-1.0) (4). This pathway has been adopted across the Yorkshire and Humber region with resources available to guide implementation (7).

Benefits of using Faecal Calprotectin

The key benefits of using FC as part of a referral pathway are to streamline patients into appropriate referral pathways, ensure treatment is started promptly in those with IBD, and to support making a positive diagnosis of IBS in the community. The use of repeat FC testing allows individuals to be identified for urgent referral, routine referral, or further management for IBS. The HUTH FC pathway,

modelled on the YFCCP, has been adapted to reflect local referral pathways, integrate with the colorectal 2WW referral pathways, and to signpost primary care professionals to gain support and guidance when required.

The HUTH Faecal Calprotectin referral pathway (see flowchart)

1.Who is the pathway suitable for?

- Patients with new onset lower gastrointestinal symptoms suggestive of IBS or IBD
- Aged 18-60 years
- Initial screening investigations are normal, including:
    - Full blood count (FBC)
    - Urea + electrolytes (U+E)
    - C Reactive Protein (CRP)
    - Thyroid function tests (TFT)
    - Calcium
    - Coeliac serology

2.Who should not be managed using this pathway?

- Patients meeting the criteria for 2WW referral for (see NICE NG12)
    a. >40 years with unexplained weight loss/abdominal pain
    b. >50 years with unexplained rectal bleeding or associated iron deficiency anaemia
    c. >60 years with iron deficiency anaemia or change in bowel habit

    These individuals should have a **FIT test** sent and a referral to the **Colorectal 2 week wait (2WW) pathway**

- Patients with acute, severe bloody diarrhoea:

    Individuals with severe, bloody diarrhoea, with a bowel frequency of at least 6 motions in 24 hours with at least one marker of systemic toxicity: pulse rate >90 bpm, temperature >37.8 °C, haemoglobin <105 g/L and/or an CRP >45 and high clinical suspicion of acute severe colitis should be either discussed with the **gastroenterology on-call team (0800-1700, Monday-Sunday)** or admitted via the **Acute Medical Unit at HUTH (1700-0800)**

- Patients over 60 years of age with new onset lower gastrointestinal symptoms suggestive of IBS or IBD
    - Please refer to Gastro OP clinic

3.Using the pathway:

- Initial FC <100 µg/g:
    - IBS is highly likely (98%)
    - Manage in community according to NICE IBS guidelines, alongside local supporting information (Appendix 1)
    - Consider community dietetic involvement, and NICE first line therapies

- Initial FC 100-250 µg/g:
    - Arrange repeat FC testing in **2 weeks**
    - Please then use the following steps:
        - If 2nd FC = >250 µg/g – **urgent referral** to the HUTH IBD clinic (see below)
        - If 2nd FC = 100-250 µg/g – please send a **routine** Gastroenterology OP clinicreferral using ERS
        - If 2nd FC = <100 µg/g – manage in community as above

- Initial FC >250 µg/g:
    - Send **urgent** referral to HUTH IBD clinic using ERS AND send copy to IBD administrator on IBD.Bookings@hey.nhs.uk
    - There are 6 dedicated rapid access slots per week in IBD clinics in HUTH/week to allow access to rapid assessment, investigation, and management.

4.What if the patient has FC <100, but has ongoing symptoms?

- If >50 years and FC >50 with ongoing symptoms, please send **routine referral** to the HUTH General Gastroenterology Clinic via ERS. The service is reviewed regularly and referrals will be accepted or occasionally clinical advice given via online message.
- For all other individuals with persistent symptoms, or limited response to first line management strategies please use the HUTH Gastroenterology Advice and Guidance (A+G). This service is reviewed regularly and a reply will be made within 1 week of referral.

5.What if the patient has atypical symptoms?:

- **We are happy to receive questions regarding atypical symptoms via the HUTH Gastroenterology Advice and Guidance (A+G).**
- Please note that severe watery diarrhoea associated with incontinence and nocturnal symptoms could be a sign of an alternative diagnosis such as *microscopic colitis* although most referrals are likely to be suitable for referral via the colorectal pathways as this is most commonly seen in individuals ≥ 50 years of age (9).

References:

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