Centre for Health and Disability Assessments

Operated by MAXIMUS

Gastrointestinal Disorder and Bowel Incontinence

(Self- Directed Learning Pack)

MED/CMEP~138

Date: 21st October 2015

Foreword

This training has been produced as part of a training programme for Healthcare Professionals (HCPs) who conduct assessments for The Centre for Health and Disability Assessments on behalf of the Department for Work and Pensions.

All HCPs undertaking assessments must be registered practitioners who in addition, have undergone training in disability assessment medicine and specific training in the relevant benefit areas. The training includes theory training in a classroom setting, supervised practical training, and a demonstration of understanding as assessed by quality audit.

This training must be read with the understanding that, as experienced practitioners, the HCPs will have detailed knowledge of the principles and practice of relevant diagnostic techniques and therefore such information is not contained in this training module.

In addition, the training module is not a stand-alone document, and forms only a part of the training and written documentation that the HCP receives. As disability assessment is a practical occupation, much of the guidance also involves verbal information and coaching.

Thus, although the training module may be of interest to non-medical readers, it must be remembered that some of the information may not be readily understood without background medical knowledge and an awareness of the other training given to HCPs.

Document control

Superseded documents

Version history

Version	Date	Comments
1a Draft	9th November 2012	Initial Draft by Medical Training and Development
1b Draft	31st January 2013	Updated following peer review
1c Draft	1st February 2013	Formatting
1d Draft	27th February 2013	Updated following internal QA by Clinical Lead
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3a Draft	23rd September 2015	Product review and update
3 Final	21st October 2015	Final Document

Changes since last version

Foreword updated

Medical Services Centre (MSC) updated to Assessment Service Centre (ASC)

Medical Examination centre updated to Assessment Centre

Information relating to DLA removed and module updated to be suitable for HCPs performing Work Capability Assessments

Additional information added in section 2 on the various conditions to provide more clarity on the conditions and be in keeping with current guidance

Additional information added to Case Example 1 and 2 for more clarity on overall level of function

HPC updated to HCPC

References and resources updated

Return address on Observation form updated

Outstanding issues and omissions

Updates to Standards incorporated

Issue control

Author:	Clinical Learning and Development
Owner and approver:	Clinical Director
Signature:	**Date:**
Distribution:	

Contents

1. Introduction

Welcome to the learning pack on Gastrointestinal Disorders and Bowel Incontinence. The overall aim of this learning pack is to refresh the Healthcare Professionals' knowledge and enhance their confidence in assessing people with a variety of gastrointestinal conditions which may or may not be associated with bowel incontinence.

Cancers of the gastrointestinal tract will not be considered within this learning pack.

This Learning Pack will need to be completed by all Healthcare Professionals (HCPs) who carry out Work Capability Assessments for the Department for Work and Pensions (DWP).

The learning pack will take you approximately 2 hours to complete, which can be done in one go or at smaller separate sittings. It is important that you complete learning activities in the order they are given; by doing so you will reflect, consolidate and build on your learning throughout.

Section 5 consists of a multiple choice questionnaire which you will need to complete and forward to the Training Support Manager at your local Assessment Service Centre (ASC).

2 CPD (continuing professional development) points will be allocated on successful completion of this Learning Pack.

A guide to using this pack

The following symbols are used to assist you in completing the learning activities included in this folder.

Indicates a time for reading

Indicates you should record / write your views and comments

Advises you of the materials that are provided and/or needed

Suggests the approximate time needed to complete any particular learning activity

Learning Pack Objectives

- To review and refresh the knowledge of some common gastrointestinal disorders including current management of these conditions
- To review and refresh the knowledge on bowel incontinence including current management
- To review the functional effects of these conditions
- To consider case examples
- To consolidate the knowledge through completion of a multiple choice questionnaire

2. Gastrointestinal Disorders

This section of your learning pack focuses on some common gastrointestinal disorders, including irritable bowel syndrome, coeliac disease, inflammatory bowel disease, diverticulitis and peptic ulcer disease.

Objectives

To review and refresh the knowledge of some common gastrointestinal disorders including current management of these conditions

Materials

You may wish to refer to relevant textbooks or websites for further information whilst completing this section. Appendix B contains some useful references although the list is not exhaustive.

Duration

The learning activities in this section should take approximately 40 minutes to complete.

2.1 Irritable Bowel Syndrome (IBS)

What are your current views on IBS? Complete the following:

TABLE 1

XXXX			

The answers to the questions in Table 1 and to the tables in the following sections are found in Appendix A.

Irritable bowel syndrome is a functional gastrointestinal disorder which is often chronic and relapsing, in the absence of any specific abnormality within the gastrointestinal system.

IBS commonly affects people between the ages of 20 – 30, although recent studies suggest that it is also common in the older population. It is twice as common in women as in men in Western countries. Overall prevalence is estimated at 10-20%.[1]

2.1.1 Symptoms

IBS is characterised by abdominal pain or discomfort and a change in bowel habit. The diagnosis is usually made if symptoms are present at least 3 times a month for the past 3 months, in the absence of any other medical condition which could cause the symptoms.

Any 'red flags' should warrant referral to secondary care for further investigation. Red Flag indicators include:

- Unintentional and unexplained weight loss
- Rectal bleeding
- Family history of bowel or ovarian cancer
- Change in bowel habit to looser and/or more frequent stools persisting for

[1] https://www.nice.org.uk/guidance/cg61/

more than 6 weeks in a person aged over 60 years

- Anaemia
- Abdominal or rectal masses
- Raised inflammatory markers

People may present with a wide range of symptoms and IBS is often divided into 4 subtypes based on the person's stool consistency:

- IBS with constipation – IBS-C – hard or lumpy stool at least 25% of the time and loose or watery stool less than 25% of the time
- IBS with diarrhoea – IBS-D – loose or watery stool at least 25% of the time and hard or lumpy stool less than 25% of the time
- Mixed IBS – IBS–M - hard or lumpy stool at least 25% of the time and loose or watery stool at least 25% of the time
- Unsubtyped IBS – IBS-U - hard or lumpy stool less than 25% of the time and loose or watery stool less than 25% of the time

According to NICE guidelines (CG61)[2], a diagnosis of IBS should be considered if a person has abdominal pain or discomfort that is either relieved by defaecation or associated with altered bowel frequency and stool form and accompanied by at least 2 of the following:

- Altered stool passage with straining , urgency, or incomplete evacuation
- Abdominal symptoms - bloating, distension, tension or hardness
- Symptoms made worse by eating
- Passage of mucous

Individuals may report other symptoms such as loss of appetite, lethargy, nausea, backache and bladder symptoms.

2.1.2 Cause

No clear causative factor has been identified for IBS although researchers believe that a combination of physical and mental health problems can lead to IBS.

[2] https://www.nice.org.uk/guidance/cg61/

Possible causes include:

- Post infectious bacterial gastroenteritis
- Food sensitivity – especially to foods containing gluten or fructose
- Brain-gut signal problems
- Gastrointestinal motor problems
- Hypersensitivity in bowels
- Mental health problems – anxiety, depression, post traumatic stress disorder
- Abnormal levels of neurotransmitters
- Genetic factors

2.1.3 Investigations

NICE guidelines recommend that the following tests are performed routinely in people who meet the IBS diagnostic criteria to exclude other possible diagnosis:

- Full blood count
- Erythrocyte sedimentation rate or plasma viscosity
- C-reactive protein
- Antibody testing for coeliac disease

Various other investigations, such as ultrasound, sigmoidoscopy, colonoscopy, thyroid function tests, faecal occult blood, faecal ova and parasite test, and hydrogen breath test, should not be performed routinely.

2.1.4 Management

- Dietary advice:
    - Insoluble fibre (such as bran) should be avoided in all types of IBS
    - Adjustment of soluble fibre (such as oats) intake depending on the predominant symptoms, high fibre for IBS-C, low fibre for IBS-D
    - Having regular meals, meals should not be omitted and individuals should avoid long gaps between meals
    - Drinking at least 8 cups of fluid per day
    - Restricting intake of caffeine, alcohol or fizzy drinks

  - Reducing intake of 'resistant starch' (found in processed or re-cooked food)
  - Limiting intake of fruit if this exacerbates symptoms
  - If diarrhoea predominates - excluding artificial sweeteners, which contain sorbitol and act as an osmotic laxative
  - If bloating and wind is problematic – may be helped by increasing intake of soluble fibre (such as oats, barley, rye) and linseeds (up to one tablespoon a day)
  - Persistence of symptoms may require referral and advice from a healthcare professional with expertise in dietary management

- Lifestyle modification – appropriate physical activity together with good sleep habits to maintain a healthy lifestyle should be encouraged
- Probiotics may be helpful. These are live organisms found in food such as yoghurts or in dietary supplements which can improve symptoms of IBS
- Medication – this will need to be adjusted depending on the symptoms and the individual should be advised on how to titrate the dose and type of medication to achieve normal stool consistency
  - Fibre supplements (linseeds) may be required if dietary fibre is ineffective for cases where constipation predominates
  - Antispasmodic agents such as hyoscine or mebeverine may be beneficial to reduce abdominal spasms and cramps
  - If constipation predominates – bulk forming laxatives should be considered. Lactulose should be avoided as it exacerbates bloating
  - If diarrhoea predominates, loperamide is the first choice of treatment
  - Linaclotide, a guanylate cyclise-C agonist, may be used for individuals with IBS with constipation for at least 12 months, who have not benefitted from maximal doses of other laxatives
  - If other medication is not helpful, tricyclic antidepressants, such as amitriptyline, can be used as second line treatment in IBS-D – usually at low dosages
  - If tricyclics are ineffective, selective serotonin reuptake inhibitors (SSRIs), such as citalopram, fluoxetine or paroxetine, may be tried especially if pain is a predominant symptom
- Psychological therapy – this may be considered if the person does not respond to medication and is still symptomatic after 12 months
  - Cognitive behavioural therapy

- Hypnotherapy
- Psychotherapy – such as psychodynamic interpersonal therapy
- Relaxation therapy – may be beneficial however further trials would be needed to determine overall efficacy

- Complementary and Alternative medicine:
  - Acupuncture and reflexology are not recommended for IBS
  - Herbal medicines may be beneficial however more information is required to determine overall benefit
  - Use of Aloe vera for the management of IBS should not be encouraged

2.1.5 Prognosis

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2.2 Coeliac Disease

TABLE 2

XXXX			

Coeliac disease is an autoimmune disorder. Gluten, present in wheat, barley and rye, triggers an immune response in the body which results in damage to the mucosal lining of the bowels.

Coeliac Disease is common in Europe and affects 1 in every 100 people in the UK. Reported cases suggest that it is 2-3 times more common in women than in men. It can present at any age with most symptoms developing during early childhood (between ages of 8-12 months) or in later adulthood (between 40-60 years of age).

Screening for Coeliac Disease is not carried out routinely in the UK and it may take a long time for the correct diagnosis to be made.

2.2.1 Symptoms

Symptoms can range from mild to severe and may include:

- Nausea and Vomiting – more common in children
- Abdominal pain, cramps or bloating
- Changes in bowel habit – diarrhoea or constipation – very severe diarrhoea may result in bowel incontinence
- Deficiency of iron, vitamin B_{12} or folate – may result in anaemia
- Loss of appetite and/or weight loss
- Fatigue
- Peripheral neuropathy

- Alopecia – more common in adults
- Mouth ulcers, skin rash, tooth enamel problems
- Osteoporosis, joint and/or bone pains
- Depression
- Infertility or repeated miscarriages
- may present as anaemia in adults

2.2.2 Cause

Coeliac disease is an autoimmune disorder, the exact cause is not known however there is an increased incidence of the condition within families. The risk for developing coeliac disease is 10% in people with a family history, compared to 1% for people with no family history of this condition.

Genetic factors appear to play a role – 80% of people with coeliac disease have the haplotypes HLA-A1, B8, DR3, DR7, DQW2, compared to 20-30% in the general population. However, other factors play a role as not all people with coeliac disease have these haplotypes.

Environmental factors are also thought to play a part in the development of Coeliac Disease. These include gastrointestinal infections during early childhood or the introduction of gluten in a baby's diet before age of 3 months.

The presence of other medical conditions such as type 1 diabetes, ulcerative colitis, epilepsy and other autoimmune disorders may increase the risk of developing coeliac disease.

2.2.3 Investigations

Screening for coeliac disease is only performed if the person has symptoms suggestive of the disease or if there are risk factors for developing the disease.

NICE guidelines (NG20)[3] recommend serological testing for coeliac disease in children and adults who have:

- Persistent unexplained gastrointestinal or abdominal symptoms, such as diarrhoea, nausea or vomiting, abdominal pain, cramps or distension
- Prolonged fatigue
- Failure to thrive or faltering growth in children
- Unexpected weight loss

[3] http://www.nice.org.uk/guidance/ng20

- Unexplained iron, vitamin B12 or folate deficiency
- Severe or persistent mouth ulcers
- Autoimmune thyroid disease
- Irritable bowel syndrome
- Type 1 diabetes
- First degree relatives with coeliac disease

Serological testing may also be offered to people with a variety of other medical conditions, such as autoimmune disorders, metabolic disorders, endocrine disorders, unexplained neurological symptoms, unexplained fertility problems, dental enamel problems, Down's syndrome, Turner syndrome and persistently unexplained deranged liver enzymes.

Screening consists of a blood test for antibodies for coeliac disease and a biopsy of the mucosa of the small intestine during endoscopy which is performed by a gastroenterologist. A gluten free diet should not be started before the diagnosis is confirmed by intestinal biopsy, even if serological testing is positive.

Other investigations, such as blood tests (for anaemia and iron levels), skin biopsy of rash (for dermatitis herpetiformis), bone density (for osteoporosis), may be performed, depending on the duration and nature of the symptoms present.

2.2.4 Management

Individuals who are diagnosed with coeliac disease should follow a gluten free diet for life. Some people are also sensitive to oats and will need to avoid these in the diet in addition to gluten.

Referral to a dietician will ensure that the diet remains balanced and contains all the essential nutrients.

Gluten is present in wheat, barley and rye. Food which contains gluten and should be avoided, unless labelled as gluten-free, includes bread, pasta, pizza bases, cereal, biscuits and crackers, cakes and pastries, some sauces and tinned foods, beer and ales. Food such as fruit, vegetables, red meat, chicken, fish, most dairy products and rice do not contain gluten. Many gluten-free alternatives are available in supermarkets and health food shops and on prescription.

2.2.5 Prognosis

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2.3 Inflammatory Bowel Disease

TABLE 3

XXXX			

Inflammatory bowel disease is the term used to describe chronic inflammatory disorders of the gastrointestinal tract. The two main conditions are Crohn's disease and ulcerative colitis.

2.3.1 Crohn's Disease

Crohn's disease is a chronic inflammatory disease which may affect any part of the gastrointestinal tract, from mouth to anus, with inflammation affecting all layers of the gut wall and onto the mesentery.

It affects 30 – 50 people per 100 000 in the UK, with a peak incidence age of 15 - 35 years, although it can occur for the first time at any age. One third of cases are diagnosed before the age of 21 years. It is more common in women than in men.

2.3.1.1 Symptoms

The disease tends to run a chronic course with flare-ups and remissions. Symptoms vary in frequency and severity. The main symptoms are:

- Abdominal pain and bloating
- Diarrhoea with or without rectal bleeding
- Weight loss
- Urgency which can result in incontinence (this is usually worse in the morning)
- Malaise and fatigue – significant during both episodes of flare ups and also during remission phases

Other symptoms include:

- Loss of appetite
- Mouth ulcers
- Fever
- Anal ulcers, fissures, fistulas, abscesses, fleshy skin tags
- Anaemia
- Pain in bones and joints, arthritis
- Skin lesions – erythema nodosum, pyoderma gangrenosum
- Eye problems - uveitis
- Inflammation of liver and biliary tract

2.3.1.2 Cause

The cause is unknown; however, genetic factors and environmental factors (such as smoking) may be implicated.

2.3.1.3 Investigations

The diagnosis of Crohn's disease is usually made from the clinical picture and the results from various investigations.

Common investigations include:

- Blood tests
- Radiological investigation – ultrasound, barium studies, CT scans
- Endoscopy usually with biopsy – gastroscopy, colonoscopy or sigmoidoscopy

2.3.1.4 Management

The aim of treatment is to reduce symptoms and improve the quality of life. Severe episodes or serious complications may require hospitalisation for stabilisation of the condition and treatment as necessary. Because of the huge variability of the condition between individuals, management has to be individualised and patient centred. Many of the individuals are quite young and are still at a critical period of their personal/educational/employment/social development. These issues are covered in the NICE guidelines (CG152)[4].

- Dietary and lifestyle changes

[4] http://www.nice.org.uk/guidance/cg152

- Medication :
  - Glucocorticosteroids – prednisolone, methylprednisolone, intravenous hydrocortisone – monotherapy to induce remission in people with first presentation or single inflammatory exacerbation of Crohn's in a 12 month period. Glucocorticosteroids should not be used as monotherapy to maintain remission once this is achieved.
  - Enteral nutrition can be used instead of glucocorticoids to induce remission in children or young adults with concerns on growth or side effects of medication
  - If conventional glucocorticosteroids are not tolerated, budesonide may be used. This should not be given for severe presentations or exacerbations of the disease
  - 5-aminosalicylate – this may be used if glucocorticosteroids are not tolerated. This should not be given for severe presentations or exacerbations of the disease
  - If there are 2 or more inflammatory exacerbations in a 12 month period or glucocorticosteroid dose cannot be tapered, then azathioprine or mercaptopurine may be added to the dose of glucocorticosteroids to induce remission. These drugs should not be used as first line monotherapy to induce remission, however once remission is achieved, they may be used as monotherapy to maintain remission
  - If azathioprine or mercaptopurine cannot be tolerated, methotrexate may be added to the glucocorticosteroid to induce remission. Once remission is achieved, methotrexate may be given as monotherapy in people who failed to respond to azathioprine or mercaptopurine or have contraindications to their use.
  - Failure to respond to conventional therapy, with persistence of severe active Crohn's disease, may be treated by infliximab or adalimumab. These should be given as a planned course of treatment for 12 months or until the treatment fails. Regular specialist review is necessary.
  - After surgery, remission may be maintained by azathioprine, mercaptopurine or 5-amminosalicylic treatment
- Surgery. Between 50-80% of people with Crohn's disease will need surgery at some stage due to strictures causing bowel obstruction, fistulas, perforation or failure to respond to medical therapy.

  Surgery may be considered early in the course of treatment for people who have disease limited to distal ileum, growth impairment or refractory disease.

  Strictures – may be treated by balloon dilatation during colonoscopy.

  Bowel sparing surgery is preferred to extensive resection.

In some cases, individuals may have undergone multiple investigative or surgical procedures.

2.3.1.5 Prognosis

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2.3.2 Ulcerative Colitis

Ulcerative colitis is a chronic relapsing and remitting inflammatory condition of the large bowel which affects the mucosa of the colon/rectum with the formation of multiple small ulcers.

2.3.2.1 Symptoms

One third of people have disease limited to the final part of the bowel and rectum, with milder symptoms. One third have disease affecting most of the left side of the colon, while one third have disease affecting the whole of the large bowel and causing more severe symptoms.

The main symptoms include:

- Frequent, urgent passage of bloody diarrhoea
- Passage of pus and mucus per rectum
- Abdominal pain

Other symptoms such as fever, loss of appetite, weight loss, malaise, may be present.

The severity of symptoms varies in different individuals and often the individual has episodes of exacerbations and remissions, which can vary in duration, frequency and severity.

2.3.2.2 Cause

The exact cause is unknown although it is thought to be an autoimmune disorder. It is often associated with other medical conditions such as arthritis, skin rashes, ascending cholangitis, chronic active hepatitis and uveitis.

2.3.2.3 Investigations

Abdominal examination may reveal tenderness.

Clinical examination may shows signs of anaemia or weight loss.

Diagnosis is usually confirmed by biopsy of the bowel during colonoscopy/ sigmoidoscopy.

2.3.2.4 Management

NICE guidelines for the management of ulcerative colitis were published in June 2013 (CG166)[5].

The aim of treatment is to treat relapses and maintain remission of symptoms. Most cases can be treated with medication:

[5] http://www.nice.org.uk/guidance/cg166

- Corticosteroids – suppositories, enemas or oral – mild cases, may be used in combination with other medication – not recommended for long term use or maintenance therapy due to their side effects

- Aminosalicylates – sulphasalazine, 5-aminosalicylic acid, mesalazine – mild/ moderate exacerbations or to maintain remission. Topical or oral preparations may be given depending on the location and extent of disease, e.g. topical preparations may be more suitable for proctitis while oral preparations may be required for extensive disease

- Immunosuppressants – azathioprine, mercaptopurine, ciclosporin – severe or resistant cases or for maintenance therapy – used alone or in combination with other medication

- Biologic agents – Infliximab is the only biologic agent approved for use in severe cases of ulcerative colitis

- Other medication may be required to control specific symptoms, such as nausea or diarrhoea

If after 4 weeks there is no response to aminosalicylate therapy, oral prednisolone may be added to induce remission. If this does not produce an adequate response, then oral tacrolimus may be added after 2-4 weeks of starting prednisolone.

It is recommended that maintenance therapy is taken for life, however it may be discontinued in people with distal disease who have been in remission for 2 years and who do not wish to continue taking medication.

Hospital admission for treatment with intravenous fluids and medications may be required in severe cases. Intravenous corticosteroids or intravenous ciclosporin may be required.

Surgery may be required to remove all or part of the diseased colon if medication fails to control or improve symptoms. Emergency surgery may be required in cases of perforation, severe haemorrhage, or toxic megacolon.

Various procedures may be performed which include:

- Total proctocolectomy with ileostomy. Advantages include removal of diseased colon, drug treatment for ulcerative colitis can be stopped, there is no longer a risk of developing colon cancer, one stage procedure, people return to normal health and activities after recovery from surgery. Disadvantages include having a permanent stoma with lack of control over stool evacuation and complications of surgery/stoma, such as pelvic dissection, perianal wound, skin irritation, stoma retraction or intestinal obstruction

- Total proctocolectomy with ileal pouch anal anastomosis (IPAA), also known as restorative proctocolectomy. Advantages include removal of diseased colon, drug treatment for ulcerative colitis can be stopped, there is no longer a risk of developing colon cancer, continence is preserved and people pass

stool normally through the anus, people return to normal health and activities after recovery from surgery. Disadvantages include 2 or 3 stage procedure, people may need to take antidiarrhoeal medication as stool remains loose with need for frequent evacuation, incontinence, complications of surgery such as pelvic dissection and pouchitis.

- Total proctocolectomy with continent pouch may be performed for people who cannot have ileal pouch anal anastomosis for various reasons. Advantages include removal of diseased colon, drug treatment for ulcerative colitis can be stopped, there is no longer a risk of developing colon cancer, continence is preserved, and people return to normal health and activities after recovery from surgery. Disadvantages include 2 or 3 stage procedure, complications of surgery such as pelvic dissection and need to catheterise pouch to empty the contents.

- Total abdominal colectomy with ileal rectal anastomosis (resection of colon, leaving rectum intact). Advantages include one stage procedure, no risk of pelvic dissection, continence is preserved and there is no stoma, overall health is improved. Disadvantages include risk of cancer remains (although reduced) as not all diseased bowel is removed.

Crohn's disease can recur after surgery however total proctocolectomy is considered to be curative for ulcerative colitis.

2.3.2.5 Prognosis

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2.4 Diverticular Disease

TABLE 4

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Diverticular disease is a condition of the large bowel in which abnormal sac like pouches develop in the wall of the colon. They are mainly found in the descending and sigmoid colon and the prevalence increases with age. These diverticulae may become inflamed resulting in diverticulitis.

2.4.1 Cause

The cause is unknown but may be related to a western diet which is high in fat and refined food and low in fibre, resulting in constipation and obesity.

Men and women are equally affected and it is commoner in older people.

2.4.2 Symptoms

Many people are asymptomatic and diverticulae may be found during investigation of other abdominal symptoms.

Symptoms may arise in 10-25% of people with diverticulae and include:

- Colicky abdominal pain, usually left sided, which may be exacerbated by eating and relieved by defaecation
- Abdominal distension
- Rectal bleeding
- Constipation
- Fever, Loss of appetite, abdominal pain and distension, Nausea and vomiting may occur during an episode of diverticulitis Due to these symptoms, many people are investigated to exclude bowel cancer.

2.4.3 Management

People with asymptomatic diverticulae do not require treatment although they are advised to eat a healthy well balanced diet with adequate fibre and fluid intake.

Laxatives and bulking agents are prescribed as necessary to maintain a regular bowel habit.

Mild analgesics and antispasmodic drugs are used for abdominal pain.

Episodes of acute diverticulitis are treated with antibiotics, fluids, restriction of food and bed rest. Some people may need to be admitted to hospital for treatment.

Complications such as haemorrhage, intestinal obstruction, fistula formation, abscess formation or peritonitis require hospitalisation for treatment. Surgery may be required with formation of temporary or permanent colostomies. Many people still recover well following surgery and most can cope independently with their stomas.

People with upper limb problems, visual impairment or cognitive impairment may require help and support to manage their stoma.

2.4.4 Prognosis

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2.5 Peptic Ulcer Disease

TABLE 5

XXXX			

Peptic Ulcers are ulcers of the mucosa of the upper part of the Gastrointestinal Tract. They usually occur in the stomach or duodenum, however they may also be found in the oesophagus (in people with oesophageal reflux), in the jejunum (in the Zollinger-Ellison syndrome or post gastroenterostomy) or in a Meckel's diverticulum containing ectopic gastric mucosa.

Peptic ulcer disease is more common in men than in women (ratio of 4:1), with a peak age of incidence between 30-50 years. Duodenal ulcers are 2-3 times more common than gastric ulcers.

2.5.1 Cause

80% of cases are associated with *Helicobacter pylori* infection (though this is less of a case in developed countries where due to better sanitation *Helicobacter pylori* is becoming less prevalent).

Certain medications, such as non-steroidal anti-inflammatory drugs (diclofenac, ibuprofen), may damage the mucosa and lead to ulceration.

Stomach cancer is another rare cause of ulceration.

Other factors known to predispose people to developing peptic ulcers include:

- Male sex
- Smoking
- Alcohol
- Hereditary or familial factors

- Drugs – (other than NSAIDs) - steroids, colchicine
- Renal failure or people with multi-organ failure
- Raised blood calcium
- Crohn's disease
- Zollinger-Ellison syndrome
- Stress

2.5.2 Symptoms

- Epigastric pain, usually associated with meals, may wake a person up during the night and may be relieved by antacids
- Nausea with or without vomiting
- Flatulence and heartburn
- Loss of appetite and weight loss

Any symptoms of gastrointestinal bleeding, anaemia, unexplained weight loss, early satiety, recurrent vomiting, progressive dysphagia or family history of gastric cancer require prompt referral to the gastroenterology services.

2.5.3 Investigations

Individuals with dyspepsia and acute gastrointestinal bleeding need urgent specialist referral. (NICE guidelines on dyspepsia and gastro-oesophageal reflux disease - CG 184).

All individuals diagnosed with a peptic ulcer should be tested for *Helicobacter pylori*. Upper gastrointestinal endoscopy will allow visualisation of ulcer, biopsy, control of any bleeding if present, and rapid urease testing for *Helicobacter pylori*.

Other tests for *Helicobacter pylori* include carbon-13 Urea breath tests, serum antibody measurement or stool antigen tests.

2.5.4 Management

Behaviour modification:

- For peptic ulcers caused by medication, the offending medication should be stopped or replaced where possible
- Smokers should be advised to stop smoking as this increases the risk of Peptic Ulcer formation and delays healing

- Maintain a healthy lifestyle – healthy eating; avoid caffeine, alcohol, chocolate and fatty foods; weight reduction

Medication:

- Proton pump inhibitors (PPIs) such as lansoprazole or omeprazole are first-line treatments – usually as a single dose 30 minutes before food – over 80% of duodenal ulcers heal with a 1 month course of this medication. Individuals may remain on a maintenance dose indefinitely if they also take NSAIDS.

- Triple therapy for eradication of *Helicobacter pylori* – consisting of a PPI (at appropriate doses) together with a combination of 2 antibiotics (either amoxicillin and clarithromycin or metronidazole and clarithromycin if penicillin allergic) - usually given for 7 days.

- H2 receptor antagonists such as ranitidine can be used in individuals who are intolerant of PPIs

All individuals with gastric ulcers must be followed up with a repeat endoscopy at 4-6 weeks to ensure ulcer healing and exclude malignancy.

Surgical management is uncommon but may be required if the ulcer persists despite medical therapy, there is a possibility that the ulcer is malignant or if complications arise. The two common surgical procedures are partial gastrectomy and vagotomy.

2.5.5 Prognosis

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3. Bowel Incontinence

This section of your learning pack focuses on bowel incontinence.

Objectives

To review and refresh the knowledge of the causes of bowel incontinence and its current management

Materials

You may wish to refer to relevant textbooks or websites for further information whilst completing this section. Appendix B contains some useful references although the list is not exhaustive.

Duration

The learning activities in this section should take approximately 20 minutes to complete.

3.1 Introduction

Bowel Incontinence is not a condition or diagnosis but rather a symptom of an underlying condition.

Bowel Incontinence refers to a loss of bowel control leading to the impaired ability to control bowel contents. It can range from a mild difficulty to severe loss of control of liquid or solid stool. Some definitions only consider the loss of stool while others include loss of gas and/or stool.

Continence is maintained when rectum, anus, pelvic muscles and nervous system function normally, however the person must also have the physical and mental ability to recognise and respond to the need to have a bowel movement. Any problems with these structure or abilities may lead to incontinence.

It is difficult to estimate the prevalence of bowel incontinence as many people are too embarrassed to discuss this problem, even with their own GP or with friends or family. NICE guidelines (CG49)[6] suggest that between 1 – 10 % of the adult population are affected by bowel incontinence, depending on the definition used. Studies suggest that 0.5 – 1 % of adults regularly experience bowel incontinence which affects their quality of life.

Additional symptoms may be present including – diarrhoea, constipation, urinary incontinence, itchiness or soreness of anal area, abdominal bloating, abdominal

[6] http://www.nice.org.uk/guidance/cg49

pain or cramps.

3.2 Cause

- Injury to anal/pelvic floor muscles during childbirth
- Surgery – gynaecological, prostate, rectal/anal
- Diarrhoea and/or constipation (overflow incontinence)
- Inflammatory bowel disease
- Nerve or muscle damage – trauma, tumour, radiation, diabetes, spinal cord injury, multiple sclerosis, stroke, spina bifida, etc
- Cognitive impairment – stroke, dementia
- Emotional Problems or Stress
- Medication – antacids, laxatives

Individuals at high risk of developing bowel incontinence include:

- Frail older individuals
- Individuals with loose stool or diarrhoea from any cause
- Women following childbirth, especially with third or fourth degree obstetric injury
- Individuals with neurological or spinal disease/injury
- Individuals with severe cognitive impairment
- Individuals with urinary incontinence
- Individuals with pelvic organ prolapse and/or rectal prolapse
- Individuals who have had colonic resection or anal surgery
- Individuals who had had pelvic radiotherapy
- Individuals with perianal soreness, itching, pain

3.3 Diagnosis (in the clinical setting)

- History – childbirth, trauma, other co-existing medical problems, past surgery or other forms of therapy such as radiation

- Physical examination, including anorectal examination. (Examination for continence is very limited in the disability analysis setting and it should **never** include an intimate examination)
- Assessment of cognitive function
- Investigation:
  - Barium Enema
  - Blood tests
  - Endoscopy – allows viewing of the rectum/colon with possibility of taking biopsies
  - Electromyography – electrical signals in muscles around anus are analysed to determine the presence of any nerve damage
  - Rectal or pelvic ultrasound
  - CT scans or MRI scans
  - Stool culture
  - Anal manometry - measures pressure in rectum/anal sphincter to determine whether rectal/anal sphincter muscles and nerves are working properly or not
  - Balloon sphincterogram – radiological investigation using contrast material to study anal sphincter contraction
  - Defaecography – radiological investigation using contrast material to study the process of defaecation – may involve the person drinking barium, then having x rays taken while passing stool

3.4 Management

Bowel Incontinence can have an impact on quality of life and can affect an individual both physically and emotionally. Some causes of bowel incontinence are curable while the quality of life can still be improved in other conditions where cure is not possible. Treatment should include consideration of the individual's needs and preferences and should be culturally appropriate. Specialist referral will need to be considered for treatment of specific conditions or where initial treatment is not successful.

- Treatment of underlying cause – this will be tailored to the specific condition present – specialist referral may need to be considered depending on the cause
- Changes in diet - Diet needs to be balanced to ensure appropriate nutrient intake while aiming for an ideal stool consistency and predictable bowel emptying. Cultural factors will need to be taken into account. The advice may

include:

- Reduction of alcohol and caffeine intake
- Increasing fibre and bran intake to add bulk to stool (helpful for loose stool)
- Avoidance of certain food in people who are intolerant or allergic to specific food
- Increasing fluid intake to at least 1.5 litres per day in people with hard stool and/or clinical dehydration (unless medically contraindicated)
- For Diarrhoea – limiting insoluble fibre intake (wholegrain bread, bran, nuts and seeds); avoiding skin, pips and pith from fruit and vegetables; limiting fresh and dried fruit to 3 portions per day; limiting fruit juice to one small glass per day; avoiding food high in fat (chips, fast food, burgers); limiting intake of foods high in resistant starch (pulses, wholegrain, sweetcorn, green bananas)
- For Constipation – drinking plenty of fluids and maintaining a high fibre diet (fruit, vegetables, beans, wholegrain rice and bread, nuts, seeds, oats)
- Keeping as active and mobile as possible

- Bowel Habit – Should aim for ideal stool consistency and predictable bowel emptying
  - Encourage bowel emptying after a meal
  - Encourage people to adopt a sitting or squatting position, where possible, while emptying the bowel
  - Ensure toilet facilities are private and hygienic and can be used in safety - individual may need to be aware of location of toilets, may need to be provided with RADAR key to allow access to disabled toilets, may require aids or adaptations to allow safe use of toilet facilities (such toilet seat, rails, etc)
  - Avoid need for straining to empty bowels
- Medication for constipation – chronic constipation may lead to faecal impaction. Fibre, fluids and exercise together with appropriate medication may prevent faecal impaction
- Medication for diarrhoea –
  - Loperamide – first choice – can be used long term in doses of 0.5 mg – 16 mg per day as necessary. It should be started at a low dose and increased as necessary. The dose should be titrated by the individual according to the stool frequency and consistency. It should be avoided in

people with hard stools, in an acute flare up of ulcerative colitis or in cases of acute diarrhoea where cause is still not identified

- Anticholinergic medication - reduce intestinal secretions and bowel movement
- Opium derivatives - increase intestinal tone and reduce bowel movement
- Activated charcoal - reduces water content in stool
- Metamucil - absorbs fluid and adds bulk to stool

- Avoidance of certain medication which may cause or increase Bowel Incontinence
- Continence products – Individuals should be provided with information on availability and type of continence products such as body worn pads, bed pads, anal plugs, stoma products (for people with stomas). Disposable gloves should be given together with advice on odour control and laundry needs

Specialist management should be considered where these initial strategies fail to improve Bowel Incontinence.

- Bowel Retraining – this involves improving the stool consistency (usually by diet modification), establishing a regular time to empty the bowels (by finding a suitable and convenient time in the daily routine for this), and finding ways to stimulate bowels to empty (varies from person to person, could involve taking a hot drink or direct anal stimulation)
- Biofeedback – bowel retraining exercise which uses electric probes to measure movement and pressure in rectum to confirm that the exercises are being performed correctly
- Muscle strengthening exercises – Pelvic Floor Muscle Training – used to strengthen pelvic floor muscles by a series of exercises which should be repeated 3 times a day for 6 - 8 weeks
- Electrical Stimulation – Sacral Nerve Stimulation, Tibial Nerve Stimulation – stimulation causes contraction of the anal sphincter muscles, bowel emptying occurs by interrupting the electrical impulses
- Rectal Irrigation – this can be performed by the individual but only after advice has been sought from the GP or specialist
- Surgical Treatment – Individuals will need to be referred to the specialist for discussion of the best treatment option for the particular individual, with consideration of possible benefits or limitations of each option
    - Endoscopic Radiofrequency Therapy – Radiofrequency (heat energy) is applied to the anal sphincter muscles to stimulate fibrosis and therefore tightening of the sphincter to help control bowel movements. NICE

recommends that this procedure is only carried out in specialist units

- Rectal Sphincter Repair - when anal sphincter is not working properly due to injury or age – anal muscles are re-attached to tighten the sphincter and allow the anus to close
- Bulking Agents – such as collagen or silicon - these are injected into the anal sphincter muscles to strengthen them
- Gracilis Muscle Transplant - where there is nerve damage in anal sphincter – gracilis muscle is taken from thigh an transplanted around the anal sphincter to provide increased sphincter tone
- Artificial Anal Sphincter - artificial sphincter is implanted around anal sphincter – cuff fits around anus and remains inflated to maintain continence, cuff is deflated to allow bowel movement, cuff reinflates automatically after 10 minutes
- Faecal Diversion - colostomy or ileostomy – with bag attached to stoma to collect stool

3.5 Treatment in specific scenarios

- Faecal loading or constipation – offer rectally administered treatment, which may need to be repeated daily for a few days, until bowel emptying is achieved. If rectal treatment is not appropriate, then a potent oral laxative should be given
- Limited mobility – may need to use combination of oral or rectal laxatives and/or constipating agents.
- Enteral tube feeding – may need modification of type and timing of feeds
- Severe cognitive impairment – may require behavioural and functional assessments with therapy based on goal planning and management of behavioural issues where possible
- Neurological or spinal disease/injury – may need to undergo a neurological bowel management program which involves looking at the individual's bowel habits, diet and preferences; modifying diet; oral or rectal medication; manual removal of faeces; digital anorectal stimulation techniques; surgical options
- Severely ill or terminally ill - faecal collection device may need to be considered

4. Functional Effects of Gastrointestinal Disorders and Bowel Incontinence

This section of the learning pack looks at the main functional effects of gastrointestinal disorders and bowel incontinence.

Objectives

To review the functional effects of these conditions

Materials

You may wish to refer to relevant textbooks or websites for further information whilst completing this section. Appendix B contains some useful references although the list is not exhaustive.

Duration

The learning activities in this section should take approximately 15 minutes to complete.

4.1 Functional Effects due to Gastrointestinal Conditions

XXXX

XXXX

4.1.1 Irritable Bowel Syndrome

In irritable bowel syndrome, although diarrhoea may be present, together with urgency of defaecation, the condition does not usually result in bowel incontinence. The main functional effects relate to abdominal pain and altered bowel habits which may result in lifestyle modification. Symptoms may be disabling and affect the ability to work, travel and attend social events as the person may require easy and frequent access to toilet facilities due to diarrhoea and urgency of defaecation.

IBS is often associated with other medical conditions such as chronic fatigue, chronic pain or depression/anxiety and it is usually the combination of the medical conditions which result in restriction of function. Symptoms are often exacerbated by stress and management of psychological issues may help improve overall function.

4.1.2 Inflammatory Bowel Disease

People with inflammatory bowel disease may present with various problems including bowel incontinence, severe abdominal pain which restricts various day to day activities, fatigue and malaise which also restricts ability to mobilise, self care and perform various activities daily living.

It may affect hobbies, work, social interaction due to the need to be close to toilet facilities and in people who have had surgery with formation of stomas, may result in restrictions due to the effects of the stoma itself. Psychological symptoms due to the chronic nature of the condition may also affect overall function.

4.1.3 Bowel Incontinence

Bowel incontinence should not result in a restriction of walking or mobilising, unless associated with other medical conditions which would impact on ability to walk or mobilise. People with impaired mobility may need help to get to the toilet/commode to prevent incontinence. They may be more prone to pressure sores if immobile and may require help to change clothing, incontinence aids and/or bed linen.

Individuals who manage their incontinence by use of aids or appliances may need help if they have problems with upper limb function, especially manual dexterity, or if they have cognitive or behavioural disorders.

Most of the information in the disability analysis setting is obtained from the history. The condition history will give the HCP an indication of the severity of the problem from the frequency and severity of episodes of incontinence, the medical condition present, the type of medication used, whether any continence aids/appliances are being used and whether the claimant is under specialist care.

Details of day to day activities will give the HCP information on how the problem is affecting the overall function of the individual – avoidance of going out unless necessary, use of appropriate aids/appliances, need to take change of clothing if

going out, need to limit food intake or take extra medication prior to going out, change in lifestyle, hobbies and activities.

4.1.4 Stomas

If the claimant has a stoma, the history should focus on whether they can manage this independently without leakage of the contents. Problems with manual dexterity or movements of the upper limbs; problems due to complications of surgery at the site of the stoma resulting in poor adherence of the stoma bag to the skin; passage of large amounts of faecal material into the stoma bag resulting in rupture of the bag; or problems with cognitive function may all result in an inability to cope independently with the stoma.

5. Case Examples

In this section of the learning pack you will be looking at two case examples and completing the relevant sections of the ESA85 and ESA85S Reports.

You will need to consider the continence descriptors and the overall impact on function while justifying your opinion to the Decision Maker. The relevant sections of the WCA forms have been included after each Case Scenario and suggested answers are included in Appendix A

Objectives

To complete case examples in the context of Work Capability Assessments

Materials

2 Case Examples are provided together with the relevant sections from a clerical ESA85 and ESA85S report.

Duration

The learning activities in this section should take approximately 20 minutes to complete.

5.1 Case Example 1

XXXX

5.2 Case Example 2

XXXX

6. Multiple Choice Questionnaire

This section includes a multiple choice questionnaire (MCQ) which you should complete and forward to the Training Support Manager at your local Assessment Service Centre (ASC).

This is an 'open book' exercise. Your local Training Support Manager will advise you if you do not achieve the required pass mark of 80%, so that you can review the training material and resubmit the MCQ.

The following materials are included to assist in your learning:

- Multiple choice questionnaire

This learning activity should take you approximately 10 minutes to complete.

MCQ – Gastrointestinal Disorders and Bowel Incontinence

Please complete this MCQ, and send a copy to the Training Support Manager at your local Assessment Service Centre (ASC) on completion.

Name:		**GMC/NMC/HCPC No.**	
Base Location:		**Date:**	

Please consider the following questions and indicate your answer by putting a 'tick' in the appropriate box. Note that the pass mark for this MCQ is 8 out of 10 questions to be answered correctly.

		True	False
1.	XXXX	☐	☐
2.		☐	☐
3.		☐	☐
4.		☐	☐
5.		☐	☐
6.		☐	☐

	True	False
7.	☐	☐
8.	☐	☐
9.	☐	☐
10.	☐	☐

Appendix A - Answers to General Questions

TABLE 1

XXXX		

TABLE 2

XXXX		

TABLE 3

XXXX		

TABLE 4

XXXX		

TABLE 5

XXXX		

Suggested Answers for Case Example 1

.

Suggested Answers for Case Example 2

Appendix B - References and Resources

Revised WCA Handbook

ESA File work guidelines (MED-ESAFWG~001)

Other sources:

Evidence based medical protocols for the Disability Analyst

LIMA Searchable repository

NICE guidelines: www.nice.org.uk/guidance

Irritable bowel syndrome in adults: diagnosis and management of irritable bowel syndrome in primary care. CG61. https://www.nice.org.uk/Guidance/CG61

Coeliac disease: recognition, assessment and management. NG20. https://www.nice.org.uk/guidance/ng20

Crohn's disease: management in adults, children and young people. CG152. http://www.nice.org.uk/guidance/cg152

Ulcerative colitis: management in adults, children and young people. CG166. http://www.nice.org.uk/guidance/cg166

Dyspepsia and gastro-oesophageal reflux disease: Investigation and management of dyspepsia, symptoms suggestive of gastro-oesophageal reflux disease, or both. https://www.nice.org.uk/guidance/cg184

Faecal incontinence: the management of faecal incontinence in adults. http://www.nice.org.uk/guidance/cg49

Any suitable medical textbook, such as Oxford Handbook of Clinical Specialities, or Oxford Textbook of Medicine

http://www.nhs.uk/Pages/HomePage.aspx

www.nlm.nih.gov

http://www.medicinenet.com/script/main/hp.asp

www.ncbi.nlm.nih.gov/pubmedhealth

www.fascrs.org

www.evidence.nhs.uk

www.bladderandbowelfoundation.org

http://emedicine.medscape.com/

http://www.niddk.nih.gov/health-information/health-topics/digestive-diseases/Pages/default.aspx

www.umm.edu

Observation Form

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