AETIOLOGY AND RISK FACTORS  
■ Coeliac disease (CD) affects approximately one in 300 people in the UK. Diagnosis has increased over the last two decades. It can present at any age and more commonly affects those with other autoimmune disorders, such as lupus erythematosus, type 1 diabetes and rheumatoid arthritis.  
■ CD is defined as an inflammatory condition of the small intestine, caused by the inability to digest the protein gluten;  
■ Gluten is found in wheat, barley, rye and possibly oats and is present in many foods we eat such as bread, biscuits, breakfast cereals, pasta and beer.  
■ The lining of the small intestine can become damaged when it is exposed to even small amounts of gluten. Villi, which usually project from the intestine wall, are lost. If left untreated, coeliac disease can lead to malabsorption. This in turn can lead to malnutrition, as well as other more serious complications.  

DIAGNOSIS  
■ Small intestinal biopsy – usually an endoscopy.  
■ Blood tests for antibodies.  
■ Stool sample to exclude infection.  

SIGNS AND SYMPTOMS  
■ Symptoms range from mild to severe and can mimic diseases such as irritable bowel syndrome, gastric ulcers and Crohn’s disease. In adults the symptoms may be less acute and include: 80–90 per cent experience general lassitude; 75–80 per cent have diarrhoea; 85 per cent have asymptomatic iron/ folate deficiency; 15–30 per cent have vitamin D deficiency; 10 per cent have vitamin K deficiency.  
■ Less common side-effects of CD are reduced fertility, psychological disturbances and neurological deficit, resulting in ataxia.  
■ Adults are usually diagnosed in their 30s. In childhood, the condition usually presents between nine months and three years when cereals are introduced. Children usually present with pale, bulky, offensive-smelling stools and often fail to thrive.  
■ Patients may also present with a related disease, dermatitis herpetiformis, which is an intensely itchy skin rash that usually occurs on the elbows, buttocks and knees.  

TREATMENT  
■ The key treatment is to remove foods containing gluten from the diet. Up to 70 per cent of adults, and a greater proportion of children, respond promptly to a gluten-free diet, showing improvement of symptoms within weeks or days.  
■ Keeping to this kind of diet requires a great deal of determination, as it affects meal arrangements within the family and makes eating out difficult. Adolescents often find this a problem as it can restrict their social life.  

COMPLICATIONS  
■ The development of malignancy, particularly lymphoma, albeit uncommon, is the most serious complication to affect patients with CD. Other complications include poor growth in children, early onset osteoporosis, infertility and increased risk of developing diabetes mellitus.  

SPECIFIC NURSING IMPLICATIONS  
Nurse-led clinics are important in managing CD by providing health education and monitoring dietary compliance. Questions will identify levels of understanding and patients who may be taking gluten knowingly or unknowingly. Adolescents may require increased support.  

RESEARCH AND DEVELOPMENT  
■ The gradual introduction of foods that contain gluten into the diet of infants while they are being breast fed reduces the risk of CD in early childhood (Ivarsson et al, 2002).  
■ In countries where the disease is more prevalent, such as Italy, screening is carried out on all children by the age of six. Screening for CD in the UK has been suggested because of the link with lymphoma (Holmes, 2002).  

REFERENCES  

WEBSITES  
Coeliac UK: www.coeliac.co.uk  
Digestive Disorders Foundation: www.digestivedisorders.org.uk  

What you need to know about...  
COELIAC DISEASE  
Coloured scanning micrograph of the wall of the small intestine showing the loss of villi, which normally project from the wall.