

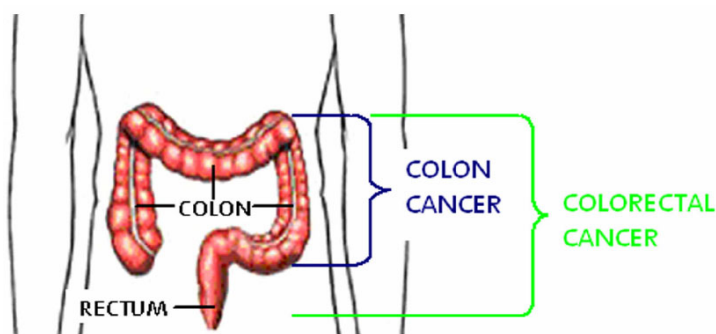
COLORECTAL CANCER: THE FACTS

'In 2000, nearly 1 million people worldwide were diagnosed with colorectal cancer'¹

COLORECTAL CANCER

- Colorectal cancer is a cancer of the large bowel (colon) and back passage (rectum)
- The symptoms of colorectal cancer may be absent or vague but they can include:
 - Blood in, or on, the stools (bowel motion)
 - A change in normal bowel habit (such as diarrhoea or constipation) for no obvious reason, lasting longer than six weeks
 - Unexplained weight loss
 - Pain in the abdomen or back passage
 - A feeling of not having emptied your bowel properly after a bowel motion

WHAT IS THE DIFFERENCE BETWEEN COLON AND COLORECTAL CANCER?



- The colon and the rectum are part of the large intestine (large bowel).
- Colon cancer is a cancerous growth that is present in the colon.

INCIDENCES AND PREVALENCE OF COLORECTAL CANCER

- In 2000, colorectal cancer was the third most commonly reported cancer, with 945,000 new cases¹
- It is estimated that over 50% of people diagnosed with colorectal cancer will die of the disease, and it is the most common cancer in developed countries¹
- Worldwide, colorectal cancer represents 9.4% of all incidents of cancer in men and 10.1% in women.²
- It is estimated that over 394,000 people die worldwide from colorectal cancer each year. In the European Union colorectal cancer is the second most common cause of death from any cancer in men²
- Colorectal cancers are rare in young people. They usually occur in men and women over the age of 50.
- In 2002, survival rates for patients diagnosed with colorectal cancer in the UK were 70%, compared with 80% survival in Germany and 90% survival in the U.S.³
- The 5-year relative survival rate for patients in the U.S., whose colorectal cancer is treated at an early stage, before it has spread, is greater than 90%. However, only 39% of colorectal cancers are found at that early stage. Once the cancer had spread to nearby organs or lymph nodes, the 5-year relative survival rate decreases⁴

RISKS AND CAUSES OF COLORECTAL CANCER

- Poor diet (high in animal fat and protein, low in fibre)
- Obesity
- Previous incidence of colorectal cancer
- History of intestinal polyps
- Age (risk increases over age 50)
- Lack of physical activity

DIAGNOSIS OF COLORECTAL CANCER

- The types of tests carried out to diagnose colorectal cancer include:
 - **Faecal occult blood test (FOBT):** test for invisible blood in the stool
 - **Double contrast barium enema (DCBE):** allows imaging of the outline of the bowel wall, showing a “hole” where the cancer is
 - **Flexible sigmoidoscopy:** insertion of a flexible tube with a camera at the tip allowing the physician to view the end of the colon and the rectum (no anaesthetic needed)
 - **Colonoscopy:** similar to flexible sigmoidoscopy but with a tube long enough to view the entire colon (mild sedation required)
 - **Virtual colonoscopy:** this is a promising, new colon-screening technology that utilises computer graphics and CT (computed tomography) images to enable the physician to view the entire colon. The procedure offers the patient a greater degree of comfort in comparison to a traditional colonoscopy
- One of the most important aspects of colorectal cancer management is called “staging”, an assessment of how far the cancer has advanced in the body. Using the universally recognised TNM classification, each case of colorectal cancer is given a score according to:
 - The extent of how much surrounding tissue has been invaded (T)
 - The extent to which the lymph nodes have been involved (N)
 - The presence or absence of spread to other organs within the body (M)
- Depending on these scores, the cancer is graded stage 0, I, II, III or IV
- Even in the absence of symptoms, people over the age of 50, and those known to be at high risk of colorectal cancer, should undertake regular screening because treatment is much more effective the earlier cancer is found

TREATMENT AND MANAGEMENT OF COLORECTAL CANCER

- In general there are three options for colorectal cancer treatment. These are:
 - Surgery
 - Chemotherapy
 - Radiotherapy
- For patients whose colorectal cancer has not spread to other parts of the body (i.e., liver or lungs), surgical removal of the cancer (resection) is a standard treatment approach
- Patients are also offered ‘adjuvant’ (post surgery) chemotherapy, the aim of which is to kill cancer cells that may have spread to other parts of the body but are too small to be detected
- The post surgery treatment of colorectal cancer always involves the use of 5-fluouracil (5-FU) and leucovorin (LV), commonly referred to as 5-FU/LV
- Surgery with or without chemotherapy will cure the cancer in many cases, but in the remaining 30-40% of patients the cancer will come back.⁵ In the management of rectal cancer, radiotherapy (radiation) is often used in addition to surgery and chemotherapy to reduce the chances of the cancer coming back or help shrink the cancer before operating
- In the most advanced patients, the cancer is more widespread. In these individuals, therapy is supportive (palliative), with the aim of reducing symptoms, optimising quality of life and ideally prolonging survival. The treatment of choice is normally chemotherapy for these patients

- Treatments for colorectal cancer include:

Chemotherapy treatments:

- **Xeloda® (capecitabine):** Xeloda is an innovative tumour-activated oral chemotherapy. It has a unique 3-step activation mechanism which gets more of the cancer-killing agent, 5-FU, produced where it is needed, in cancer cells, rather than in healthy cells.^{5,6} Xeloda is licensed as a first-line treatment in metastatic (cancer that has spread beyond the colon) patients. It is expected that Xeloda will also received a license in adjuvant (post surgery) treatment later in 2005. For more information on Xeloda, refer to the “Xeloda® Factsheet”
- **5-FU (5-fluorouracil):** 5-FU is a form of chemotherapy that is given intravenously and has been used since the late 1950s. 5-FU has long been the standard treatment for colorectal cancer and is usually given in combination with another drug, leucovorin
- **Leucovorin:** The addition of leucovorin (folinic acid added to 5-FU allows it to attach itself more effectively to the target enzyme (thymidylate synthase), which increases and prolongs the ‘attack’ of 5-FU against the cancer
- **Irinotecan (Campto®, Camptosar®):** Irinotecan is an intravenous chemotherapy developed in the mid 1990s. It targets an enzyme called topoisomerase I, which, like thymidylate synthase, is essential for DNA duplication but works at a different stage of the process. Irinotecan is used in monotherapy or combination with fluoropyrimidine for example 5-FU/LV or Xeloda.^{5,7,8}
- **Oxaliplatin (Eloxatin®):** Oxaliplatin is a third-generation platinum based analogue which works by attaching itself directly to the cancer cell’s DNA, inhibiting its growth and repair. Roche is currently conducting a global study involving Xeloda in combination with oxaliplatin (XELOX) for the treatment of colorectal cancer. Oxaliplatin is used in combination with fluoropyrimidine for example 5-FU/LV or Xeloda

Non-chemotherapy treatments:

- **Avastin® (bevacizumab, rhuMAb-VEGF):** Avastin is the first treatment that inhibits angiogenesis – the growth of a network of blood vessels that supply nutrients and oxygen to cancerous tissues. Avastin targets a naturally occurring protein called VEGF (Vascular Endothelial Growth Factor), a key mediator of angiogenesis, thus choking off the blood supply that is essential for the growth of the tumour and its spread throughout the body (metastasis). Avastin is approved for the first-line treatment of patients with metastatic carcinoma of the colon or rectum in combination with chemotherapy. Roche is currently conducting global studies involving Xeloda in combination with Avastin

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