Nursing care and treatment of patients with bladder cancer


Summary
Bladder cancer is the second most common urological cancer after prostate cancer in the UK. This article aims to update nurses’ knowledge about the disease, focusing on diagnosis, treatment and nursing care.

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Keywords
Bladder cancer; Haematuria; Urinary disorders

Aims and intended learning outcomes
This article aims to provide an overview and update on bladder cancer, focusing on diagnosis, treatment and the nurse’s role in providing care and supporting patients with the disease. After reading this article you should be able to:

- Describe the main risk factors for developing bladder cancer.
- Outline the symptoms associated with bladder cancer.
- Explain the tests used to diagnose the disease.
- Understand the staging and grading of bladder cancer.
- Discuss the treatment options available and the role of the nurse in caring for patients with bladder cancer.

Introduction
Bladder cancer remains a significant health and economic problem in the UK. From 2001 to 2002 the cost of bladder cancer in the UK was around £55 million (Sangar et al 2005). This article outlines the risk factors, signs and symptoms, diagnostic tests and treatment options available to help nurses provide optimum care and support patients in coping with the disease. Research and clinical trials on the diagnosis and management of patients with bladder cancer are ongoing and it is not possible to address all areas of bladder cancer in detail.

Time out 1
Using an anatomy and physiology textbook revise the main structures of the urinary bladder.

Anatomy and physiology
The urinary bladder is a hollow, muscular reservoir that lies in the pelvic cavity posterior to the symphysis pubis. It is the organ that collects urine before disposal by urination. In males, the bladder sits anterior to the rectum. In females the bladder sits anterior to the vagina and inferior to the uterus (Seeley et al 1995) (Figure 1). The urinary bladder is lined with transitional epithelium, which is specialised so that the cells slide past one another and the number of cell layers decreases as the volume of the bladder increases. The transitional epithelium is surrounded by a muscular coat called the lamina propria and a fibrous adventitia (Seeley et al 1995).
The area of the bladder called the trigone, which is a triangular area between the ureters, differs histologically from the rest of the bladder in that it is sensitive to expansion and once stretched to a certain degree the urinary bladder sends a signal to the brain of the need to empty the bladder.

**Epidemiology**

Cancer of the urinary bladder is the second most common urological malignancy after prostate cancer in the UK. It is the fourth most common cancer in males and the eleventh most common cancer in females, with 7,168 and 2,925 new cases diagnosed in the UK in 2004 respectively (Cancer Research UK 2004). This represents a male to female ratio of 5:2. In the UK in 2005, the mortality rate for bladder cancer was 4,734 deaths, with most occurring in males (Cancer Research UK 2004). In both sexes the incidence of bladder cancer peaks at 50-70 years (Kramer and Siroky 2004). Caucasians are at highest risk, with an average age at diagnosis of 65 years (Masood et al 2004).

**Risk factors**

Tobacco smoking is the main risk factor for bladder cancer (Bower and Waxman 2006). Tobacco smoke contains more than 60 substances classified as carcinogens (Wallerand et al 2005). Two important classes of tobacco smoke carcinogens involved in bladder cancer are polycyclic aromatic hydrocarbons and nicotine-derived nitrosamines (Pfeifer et al 2002).

The incidence of the disease is directly related to the duration of smoking and the amount smoked (Brennan et al 2000). There is also a higher risk of bladder cancer in those who start smoking at a younger age (Turner 2008). The risk from smoking decreases following smoking cessation (Brennan et al 2000). It is important, therefore, that bladder cancer is included in health education programmes related to smoking and that patients are offered smoking cessation advice.

Occupational exposure to chemical carcinogens is the most important risk factor for bladder cancer (Stenzl et al 2008). Individuals working in printing, iron and aluminium processing, industrial painting, and gas and tar manufacturing, are at greater risk of developing bladder cancer (Bower and Waxman 2006, Stenzl et al 2008). Some chemicals commonly associated with bladder cancer include: aromatic amines, such as those used in the rubber industry (Kiroth et al 2007); analine dyes found in the dying industry; and polycyclic aromatic hydrocarbons, which are a group of around 250 related compounds that are known to be harmful to health. They are produced during combustion processes (Food Standards Agency 2006), are present in oil, tar and coal deposits, and have been found to be associated with the risk of bladder cancer (Richardson et al 2007). Most chemicals take several years to accumulate, which accounts for the long latent period from exposure to the development of bladder cancer (Jung and Messing 2000). There is also an increased risk in those exposed frequently to hair dyes (Gago-Dominguez et al 2001). Silverman et al (1986) also reported an increased risk of bladder cancer in individuals exposed to motor exhaust fumes, such as truck, taxi and bus drivers, as far back as 1986. Environmental exposure from emissions of polycyclic aromatic hydrocarbons and diesel are also reported to increase the risk of bladder cancer, although this needs further evaluation (Castanó-Vinyals et al 2008).

Evidence regarding external beam radiotherapy is inconclusive. External beam radiotherapy for cervical cancer has shown an increased risk of bladder cancer (Kleinerman et al 1995) but the risk of developing the disease following radiotherapy for prostate cancer does not appear to be greater (Chrousos et al 2005).

Dietary factors appear to be controversial, however it appears that, as with many other cancers, the risk of bladder cancer is lower in those who eat a diet rich in fruit and vegetables (Steinmaus et al 2000).

Bladder cancer has also been directly related to chronic urinary tract infection or inflammation and bladder schistosomiasis – a parasitic infection that is endemic in many countries particularly in Africa, the Middle East...
and eastern Brazil, where it is a major cause of bladder cancer (Negri and La Vecchia 2001).

**Time out 2**

Maud is 54-year-old woman who is attending the emergency department with macroscopic haematuria, which has been intermittent for one week. There is no evidence of urine infection, she is haemodynamically stable and passing urine so she does not need admission. Maud smokes 20 cigarettes a day and has done so for about 35 years. She had radiotherapy for cervical cancer 15 years ago. Maud asks you if her symptoms are suggestive of cancer. How would you respond to the patient?

**Signs and symptoms**

Haematuria (blood in the urine) is the most common finding in patients with bladder cancer (Babiuk et al 2008). Around 80% of patients with bladder cancer will initially be investigated because they have been found to have haematuria (Kramer and Siroky 2004). Haematuria can be either microscopic or macroscopic. Microscopic haematuria is a common finding on routine urinalysis and is clinically significant when three red blood cells per high power field are visible under the microscope (McDonald et al 2006). Macroscopic or frank haematuria is visible to the naked eye. The degree of haematuria bears no resemblance to the underlying cause and should be considered as a symptom of serious disease until proven otherwise (O’Connell and Siroky 2004). Macroscopic haematuria is associated with a higher prevalence (around 20-30%) of urological malignancy compared to microscopic haematuria (Rodgers et al 2006, Hicks and Li 2007).

Approximately 30% of patients experience urinary urgency, dysuria (painful urination) and frequency, this is a particularly common symptom in patients with carcinoma in situ (Kramer and Siroky 2004). Patients with advanced disease may present with pelvic pain and symptoms related to urinary obstruction, such as the inability to empty the bladder (Stenzl et al 2008).

**Referral guidelines**

Most patients with symptoms of bladder cancer are referred from primary care. However, some patients will be referred from secondary care because they have presented with signs of bladder cancer during the course of investigations for other symptoms. Many patients with symptoms of bladder cancer will discuss these with a nurse or doctor and it is therefore important that nurses are aware of the referral guidelines for patients who present with symptoms suggestive of bladder cancer. The National Institute for Health and Clinical Excellence (NICE 2005) has produced referral guidelines for suspected cancers (Box 1).

According to current guidance patients presenting with haematuria or symptoms of bladder cancer should be referred urgently to a team specialising in urological cancers and should be seen in a urology department within two weeks of the referral (NICE 2005). Cancer must be either confirmed or excluded within 31 days and treatment for those with cancer must commence within 62 days (Department of Health 2005).

**Time out 3**

Imagine that you are the nurse in charge of a busy medical ward. You are mentoring a second-year nursing student who is admitting a patient from the emergency department with exacerbation of chronic obstructive pulmonary disease, the primary cause of which is smoking. The patient is stable. As part of the admission process the nursing student performs dipstick analysis of the patient’s urine, which is positive for blood. The student is aware of the potential causes of haematuria but asks you how to document and report the haematuria to ensure that the patient is referred for further investigations. What advice would you give him or her?

**BOX 1**

**Referral guidelines for suspected urological cancers**

Refer a patient who presents with symptoms or signs of a urological cancer to a team specialising in the management of urological cancer, depending on local arrangements.

**Urgent referral**

- Patients of any age with painless macroscopic haematuria.
- Individuals ≥40 years with recurrent or persistent urinary tract infection associated with haematuria.
- Patients aged ≥50 years with unexplained microscopic haematuria.
- Individuals with an abdominal mass identified clinically or on imaging, which is thought to arise from the urinary tract.

**Non-urgent referral**

- Patients <50 years with microscopic haematuria.
- Individuals with proteinuria or raised serum creatinine should be referred to a renal physician.

(National Institute for Health and Clinical Excellence 2005)
Diagnosis

Patients with suspected bladder cancer require a range of investigations to evaluate the upper tract, bladder and urethra. Most patients will initially be found to have haematuria and are usually seen in a haematuria clinic. Many haematuria clinics are designed so that patients can have all the necessary tests in one day, and many are led by nurse practitioners. Patients require a urine test that may aid diagnosis, such as urine cytology (cytological examination of the urine to look for cancer cells) or a nuclear matrix protein (NMP) 22 test.

NMP 22 is thought to be released from the nuclei of cancer cells after they die and is detected in the urine as it is over-expressed in these cells (Kumar et al 2006). The usefulness of urine cytology in this cohort of patients continues to be debated (Karakiewicz et al 2006). Although voided urine cytology has a specificity of greater than 90% (Simon et al 2003), it has some important limitations. The sensitivity of voided urine cytology is inadequate, especially in tumours that are well or moderately differentiated, and therefore a negative result does not rule out bladder cancer. The NMP 22 test is a newer test that has advantages over cytology in terms of increased detection rates. It is also cheaper and the results are available within 30 minutes (Turner 2008). Its decreased specificity, however, could be considered a disadvantage. Many institutions are now moving away from urine cytology to the NMP 22 test.

Another urinary marker for bladder cancer is the bladder tumour antigen test. This uses monoclonal antibodies to detect the presence of bladder tumour-associated antigen in urine.

Patients also require imaging of the upper urinary tract. Depending on the hospital, this may involve a combination of renal ultrasound scan to ensure there is no mass in the kidney suggestive of renal cancer, and intravenous urogram (IVU) or computed tomography IVU to ensure the ureter is not involved. Although imaging modalities may often report an abnormality with the bladder lining, direct visualisation inside the bladder is required.

Initial investigation of the bladder is with flexible cystoscopy in which a fibre-optic cystoscope is passed through the urethra into the bladder allowing direct visualisation. If any abnormal areas are found, such as a small red patch, a biopsy can be taken, or if a lesion suggestive of a bladder cancer is found the patient can be counselled for a rigid cystoscopy to take place at a later date. Flexible cystoscopy is useful to assess patients as outpatients because the procedure is undertaken with local anaesthetic and takes only a few minutes. Following the procedure the patient can resume normal activities.

Histological evaluation of resected tissue is required for a definitive diagnosis. This is obtained using rigid cystoscopy, where the patient is anaesthetised or has a spinal anaesthetic, and a rigid, hollow tube is passed through the urethra into the bladder to allow visualisation and resection of lesions by a urological surgeon. The tissue is then sent to the pathology department to be examined by a histopathologist so that the disease can be graded. If a bladder tumour has been visualised in earlier imaging studies a diagnostic flexible cystoscopy can be omitted, as the patient will inevitably require a rigid cystoscopy (Babjuk et al 2008). If any tissue is resected the procedure is called a trans-urethral resection of bladder tumour, which is a diagnostic procedure because tissue is removed for further analysis, and is also a therapeutic procedure because the suspected cancerous lesion is removed.

Time out 4

Síón is a 43-year-old male who works in the iron and steel production industry. During an annual health check with his occupational health department he is found to have microscopic haematuria and referred for further investigations. Imagine that you are the practice nurse at Síón’s local surgery. He has made an appointment to see you as he wants to know what tests he will have to undergo and what to expect. What information would you give the patient?

Staging and grading

Staging Bladder cancer is staged using the common tumour, lymph node, and metastasis classification (TNM) (Table 1). The tumour stage, classified as Ta-T4 describes the pathological development of the tumour (Figure 2). The nodal staging is classified as N0-N3 and the metastatic stage expressed as M0-M1. Lesions are further categorised pathologically by their microscopic appearance as either transitional cell carcinoma, squamous carcinoma or adenocarcinoma. Approximately 90% of bladder cancers in the UK are transitional cell carcinomas (Bower and Waxman 2006). Squamous cell carcinoma accounts for 7-8% and a adenocarcinomas about 2% (Kramer and Siroky 2004).
Carcinoma in situ Carcinoma in situ (CIS) exhibits all the microscopic features of an invasive cancer but does not breach the basement membrane and is non-invasive. CIS is thought to represent a stage in the progression from dysplasia to cancer (Bower and Waxman 2006). CIS of the bladder is an indicator of increased biological aggressiveness and is normally treated with Bacillus Calmette-Guérin (BCG) immunotherapy.

Grading The stage of cancer classifies the size of a primary tumour and the presence or absence of metastases, and the grade indicates how aggressive the cancer is likely to be. Bladder cancer is graded as G1-G3 with G1 being well differentiated (least aggressive), G2 being moderately differentiated and G3 being poorly differentiated (most aggressive).

This is based on the World Health Organization (WHO) Classification grading from 1973, which was updated in 2004 (Box 2). Although the use of the new classification is advocated for more uniform diagnosis of bladder cancer (Stenzl et al 2008), there need to be more clinical trials to validate it. Until such a time, tumours should be graded using both classifications (Stenzl et al 2008). In clinical practice in the UK, it remains common for the older classification to be used.

It is important that the tumour is staged and graded because this enables the estimation of prognosis and the selection of appropriate treatments (Masood et al 2004). Bladder cancer can be broadly divided into non-muscle invasive (previously called superficial) (Ta-T1), where at most the disease invades the lamina propria, or muscle-invasive (≥T2), which means that at least the superficial muscle layer of the bladder is involved.

Approximately 70-80% of newly diagnosed bladder cancers are diagnosed while the disease remains non-muscle invasive (Simon et al 2003, Bower and Waxman 2006). The recurrence rate is around 50-70% and about 5-10% of cancers progress to muscle-invasive disease (Konety and Getzenberg 2001). Patients with high-grade disease have a poorer prognosis. In areas where schistosomiasis is endemic, high-grade squamous cell carcinoma is often well advanced at the time of diagnosis (Koraitim et al 1995). The high recurrence rate of bladder cancer, along with the risk of progression, highlights the need for early detection so that the disease can be diagnosed before it progresses into the muscle (Simon et al 2003).

Management

The management of bladder cancer depends on the stage and grade of the disease and it is important that this information is obtained so that care can be tailored to the needs of the patient. The treatment of non-muscle-invasive bladder cancer is different from muscle-invasive bladder cancer.

Non-muscle-invasive bladder cancer

Trans-urethral resection of the bladder tumour

The initial treatment is trans-urethral resection of the bladder tumour (TURBT). The goal of TURBT is to make a correct diagnosis and to remove all visible lesions (Babjuk et al 2008). The patient is usually admitted on the morning of the procedure and kept nil by mouth as per local guidelines. The procedure takes around 30-60 minutes depending on the size and number of tumours in the bladder.

<table>
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<th>TNM classification of bladder cancer</th>
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(Sobin and Wittekind 2002)
The patient may be discharged later the same day or the next day depending on the surgeon’s instructions and the patient’s condition following surgery. Patients are usually followed up in the outpatient clinic a few weeks later, when the results of the histology are discussed and a treatment plan is formulated. Any patients found to have cancer will be discussed at a multidisciplinary team meeting. The patient should also have a renal and bladder ultrasound and an IVU to assess the upper urinary tract if this has not already been performed (Babjuk et al. 2008). The patient may require no further treatment but will undergo a period of surveillance with cystoscopy.

**Intravesical chemotherapy** Following TURBT patients should be given a single instillation of intravesical chemotherapy within 24 hours (Griffiths and Mellon 2008) because this reduces the risk of local recurrence by about 50% for one or two years after initial treatment, and the proportion of patients who remain disease-free at eight years is increased by 8% (NICE 2002). In most UK hospitals, mitomycin C is used for this purpose, but other agents are available. Mitomycin C is an anti-tumour antibiotic that inhibits deoxyribonucleic acid synthesis by alkylation (the transfer of an alkyl group from one molecule to another) (Lamm and Lamm 1989). According to the British Association of Urological Nurses (2004) the aim of intravesical chemotherapy is to:

- Treat residual transitional cell carcinoma after resection and reduce tumour seed re-implantation.
- Induce prophylaxis following resection to reduce recurrence.
- Increase the disease-free interval.

In some centres it is common practice to administer a course of intravesical chemotherapy (usually for four to eight consecutive weeks) if there are several tumours present in the bladder or if there is recurrence (Babjuk et al. 2008). However, this practice remains controversial as the ideal duration of treatment remains undefined because of conflicting data. Some centres advocate the use of intravesical BCG if disease recurs (Babjuk et al. 2008).

**Intravesical immunotherapy** Intravesical immunotherapy is indicated for patients who have non-muscle invasive medium to high-grade tumours, for example CIS, Ta-T1, G2-G3, and should be offered to patients in this group (Bohle et al. 2003). This form of therapy differs from intravesical chemotherapy in that it stimulates a local inflammatory reaction with an apparent elimination or reduction of non-muscle invasive
cancerous lesions (Cumisky 2000). The drug used is BCG, which is the vaccine administered to protect against tuberculosis.

Treatment is started at least ten days following TURBT and generally patients receive treatment for about three years. Patients are initially given an induction course of a weekly treatment for six weeks then a further three induction treatments at three months. They then have a weekly treatment for three weeks at 6, 12, 18, 24, 30 and 36 months (Lamm and Lamm 1989). The aim of immunotherapy is to delay the time of recurrence of the cancerous lesions. The patient will remain on a period of cystoscopy surveillance during treatment. If BCG treatment fails and the cancer progresses, patients may require a treatment for invasive bladder cancer.

It is important to recognise that practice differs in cancer networks throughout the UK. However, the European Association of Urology guidelines state that all patients should initially have a follow-up cystoscopy at three months (Babjuk et al 2008). Further follow up then differs for patients in different risk groups. If bladder cancer recurs the patient will require another TURBT and surveillance will re-start from three months as it does for patients diagnosed for the first time (Babjuk et al 2008).

Many nurses run clinics for cystoscopy follow-up and for the administration of intravesical chemotherapy or immunotherapy. They manage this group of patients independently after initial TURBT. It is important that nurses who are involved in the care of these patients are aware of the side effects, a full description of which can be found in the product specification sheet or the British National Formulary. Mitomycin C commonly causes side effects such as chemical cystitis—symptoms may include urinary frequency, urgency and pain on urination—or contact dermatitis (Shelley et al 2003). Although intravesical BCG causes similar symptoms, for example cystitis, it may also cause low-grade fever and tiredness. It has been associated with more serious side effects such as systemic tuberculosis and liver damage. It is important, therefore, that the patient is monitored for any new symptoms that might require investigation.

As stated, a large number of non-muscle-invasive bladder cancers can recur and some progress to muscle-invasive disease. To predict the short and long-term risks of recurrence and progression, the European Organisation for Research and Treatment of Cancer (EORTC) (2006) has developed a scoring system (Table 2) and risk tables. Table 2 is used to calculate the recurrence and progression scores, which should then be compared with the risk tables to ascertain the likelihood of recurrence and progression.

**TABLE 2**

<table>
<thead>
<tr>
<th>Weighting used to calculate recurrence and progression scores of non-muscle-invasive bladder cancer</th>
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<td>Tumour diameter</td>
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<td>Prior recurrence rate</td>
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<td>Primary</td>
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<td>≤ 1 recurrence/year</td>
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<td>&gt; 1 recurrence/year</td>
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<td>Category</td>
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<td>T1</td>
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<tr>
<td>Concomitant CIS</td>
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<td>Grade (1973 WHO)</td>
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<td>G2</td>
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<td>G3</td>
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<td>Total Score</td>
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It is important that patients are counselled about the risk of recurrence and progression so they understand why surveillance with follow-up cystoscopy, and where applicable, intravesical therapy is required. Nurses should also be familiar with the charts to help advise patients.

**Time out 5**

Think about the patients you have nursed following major abdominal surgery. Devise a care plan for these patients to ensure that all their nursing needs are met.

**Muscle-invasive bladder cancer** In patients with muscle-invasive disease, confirmed with imaging such as magnetic resonance imaging or computed tomography, the treatment of choice is radical cystectomy, with continent diversion or neo-bladder (Stenzl et al 2008). In Europe, bladder preservation treatments are more popular because of quality of life issues (Stenzl et al 2008), but in the United States this is considered a second-line treatment, as a salvage cystectomy for recurrence of the disease is required in 20% of patients (Kramer and Siroky 2004).

**Cystectomy** A cystectomy is the surgical removal of the bladder aimed at preventing cancer extending beyond the bladder. This may be
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Performed through a conventional laparotomy, laparoscopically or robotically depending on the resources available locally. Male patients will undergo a cystoprostatectomy in which the prostate is also removed; female patients will usually undergo an anterior extenteration in which the bladder, uterus, ovaries, fallopian tubes, cervix and the cuff of the vagina are removed (Manoharan and Nieder 2008). Some patients may be suitable for a partial cystectomy; however, this should be used in highly selected cases such as small, localised tumours (Raghavan and Sandler 2008). A cystectomy is a highly invasive procedure and only performed by specialist urological surgeons in specialist centres.

Urinary diversion When the bladder is removed, the patient still produces urine from the kidneys, which needs to be excreted. The ileal conduit is the most popular form of urinary diversion; a section of ileum is resected close to the ileo-caecal valve, the distal end of the ileum, which has been mobilised, is attached to the peritoneum and the ureters are implanted. The distal end of the ileum is then brought through and attached to the abdominal skin as a stoma (Fillingham and Fell 2004). Urine can then flow through the ileal conduit and is collected in a bag attached to the surface of the skin.

Patients may experience profound problems with body image because of the stoma. In males, cystectomy may cause erectile dysfunction and problems with orgasm. Pelvic sensation can be affected in both males and females as a result of the disruption to pelvic nerves (Fenwick 2004). Neo-bladder Bladder substitutions are becoming increasingly common (Manoharan and Nieder 2008). This procedure involves a reservoir being made from the bowel and attached to the urethra. The ureters are plumbed into the neo-bladder, which acts as a urinary bladder. This is particularly useful in patients who wish to avoid having a stoma. Patients may remain continent after training following the procedure but this cannot be guaranteed. Patients may need to perform intermittent self-catheterisation (Busuttil-Leaver 2004) and should be taught this procedure before the operation.

Patients undergoing cystectomy will have had major abdominal surgery and will usually require intensive care in the immediate post-operative period before moving to the ward. Nursing care will be similar to that required for any major abdominal surgery. The nurse will be responsible for monitoring the patient’s vital signs, fluid status (stoma/catheter output, drains, intravenous fluids, naso-gastric tube) need for analgesia and the administration of prescribed medication. The nurse should also monitor the stoma (if applicable) to ensure it remains pink and healthy in appearance. The patient will also require wound care and help with activities of daily living in the immediate post-operative period. Specialist input from other healthcare professionals such as stoma care nurses, physiotherapists and dieticians may also help.

Chemotherapy Although radical cystectomy remains the ‘gold standard’ treatment for muscle-invasive bladder cancer, this only provides a five-year survival rate in approximately 50% of patients (Stein and Skinner 2006). To improve these results chemotherapy can be administered in addition to surgery (or radiotherapy) (Stenzl et al 2008). However, 40-60% of tumours are completely or relatively chemo-resistant and some patients will receive unnecessary toxicity with no benefit (Raghavan and Sandler 2008) and an unnecessary delay in surgery.

Herr (2008) found that, in a cohort of patients who refused to undergo a planned cystectomy because they achieved a complete response to chemotherapy, 64% of patients survived, of whom 54% kept an intact and functioning bladder. Herr (2008) concluded that selected patients might survive following TURBT and chemotherapy alone.

Bladder sparing treatments The use of radiotherapy as an alternative to cystectomy for muscle-invasive bladder cancer was previously favoured in Europe, although during recent years radical cystectomy has again become the treatment of choice because of the perception of higher surgical cure rates (Raghavan and Sandler 2008). Radical cystectomy remains the gold standard treatment (Stenzl et al 2008). However, radiotherapy still remains a valid treatment choice for patients who wish to avoid surgery and is often advocated for frail or older adults. External beam radiotherapy alone should only be considered in patients who are unfit for cystectomy as radiotherapy is less effective than surgery (Stenzl et al 2008). Similarly, chemotherapy alone has been found to be even less effective than radiotherapy and is not recommended as a primary treatment for muscle-invasive bladder cancer (Stenzl et al 2008).

Management strategies introduced recently for muscle-invasive bladder cancer involve the use of surgery, such as TURBT, chemotherapy and radiotherapy. This is known as multimodality treatment. Five-year survival data (50-60%) are similar for both cystectomy and multimodality treatment. A bladder preservation approach requires close co-operation between the urologist and oncologist and a high level of compliance is required by the patient. Even if the patient shows a complete response to...
multimodality treatment the bladder will always be a potential source of recurrence of cancer, hence the patient will require strict surveillance. About half of patients are thought to survive with their original bladder intact but if the disease recurs and a cystectomy is required at a later stage the risk of lymph node metastases increases by 26% (Stenzl et al. 2008).

**Time out 6**

Think about the patients you have nursed who are in the palliative stages of their disease. What specific needs did these patients and their families have? How did you meet these individual needs?

**Metastatic bladder cancer** Patients with metastatic tumours are unsuitable for curative treatment because the disease will have already spread beyond the bladder. However, such patients may benefit significantly from palliative care. Many individuals will succumb to their disease but there have been intense efforts to improve chemotherapy regimens for these patients (Galsky and Bajorin 2008). Patients may require urinary diversion or nephrostomy if the cancer is obstructing the flow of urine. Patients should have adequate analgesia and they may require palliative radiotherapy to reduce any bone pain they have from metastases, or to relieve haematuria that may develop as a result of the growing tumour in the bladder. Patients may also require specialist input from dieticians and physiotherapists and should be offered a palliative care referral so that they can have specialist help. It is also essential to consider the spiritual needs of patients and their families.

As with all patients with palliative needs it is important that the patient has support and receives care, whether this is at home, hospital, hospice or elsewhere. Nurses should be sensitive

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**References**

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to the needs of the patient and the family. The patient should remain comfortable and analgesia administered as prescribed.

Conclusion

Bladder cancer is a significant health problem in the UK and nurses need to be able to demonstrate knowledge of the risk factors, signs, symptoms, referral guidelines, diagnostic tests, staging and grading, and management of the disease to improve patient outcomes. Much work continues in the field of bladder cancer with the aim of diagnosing patients without the need for invasive procedures and while the disease is non-muscle invasive. For patients with muscle-invasive disease the focus is on improving their treatment, care and quality of life.

Time out 7

Now that you have completed the article you might like to write a practice profile. Guidelines to help you are on page 60.

workers: impact if impaired skin and skin barrier creams.
Occupational and Environmental Medicine 64, 6, 366-372.


