NICE guidelines: Bladder cancer

Ashish Chandra FRCPath DipRCPath (Cytol)

Guy's & St Thomas' NHSFT

London

Introduction

- Bladder cancer is the seventh most common cancer in the UK
- It is 3 - 4 times more common in men than in women
- In the UK in 2011, it was the fourth most common cancer in men and the thirteenth most common in women
- There were 10,399 people diagnosed with bladder cancer and 5081deaths from bladder cancer in 2011
- The majority of cases occur in people aged over 60
- The main risk factor for bladder cancer is increasing age, but smoking and exposure to some industrial chemicals also increase risk

A priority guideline

- Physical and psychological impact high
- Poor patient experience
- Most expensive cancer for the NHS
- Variation in clinical practice
- Need for advice on best practice

Key recommendations www.nice.org.uk

1. Information and support for people with bladder cancer
2. **Diagnosing and staging bladder cancer**
3. **Treating non-muscle-invasive bladder cancer**
4. **Follow up after treatment of non-muscle-invasive bladder cancer**
5. Treating muscle-invasive bladder cancer
6. Follow-up after treatment for muscle-invasive bladder cancer
7. Managing locally advanced or metastatic muscle-invasive bladder cancer
8. Specialist palliative care for people with incurable bladder cancer

Overview of process (1)

- defining the scope and identifying the GDG
- developing clinical questions
- identifying the health economic priorities
- developing the review protocol
- systematically searching for the evidence

Overview (2)

- critically appraising the evidence
- incorporating health economic evidence
- distilling and synthesising the evidence and writing recommendations
- agreeing the recommendations
- structuring and writing the guideline
- consultation and validation

Representative groups & training

- NICE commissions National Collaborating Centre for Cancer (NCCC) to write guideline
- Panel of clinicians (urologists, oncologists, radiologists, pathologists, CNS, GPs) selected through interview
- Patient representatives, research team, health economists, project manager
- PICO
- GRADE
- LETR

Clinical issues identified

- From each of the key clinical issues identified in the scope, the Guideline Development Group (GDG) formulated a clinical question
- For clinical questions about interventions, the PICO framework was used
- This structured approach divides each question into four components:
- P – the population (the population under study)
- I – the interventions (what is being done)
- C – the comparison (other main treatment options)
- O – the outcomes (the measures of how effective the interventions have been)

Strength of evidence

- Overall quality of outcome evidence in Grading of Recommendations, , Development & Evaluation (GRADE)
- **High.** Further research is very unlikely to change our confidence in the estimate of effect
- **Moderate.** Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate
- **Low.** Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate
- **Very low.** Any estimate of effect is very uncertain

Linking Evidence To Recommendations (LETR)

- **Wording of recommendations:**
- Offer/Obtain/Record
- Do not …. (exceptions eg. clinical trials/research)

- Consider

Diagnosing and staging bladder cancer

- **Diagnosis**
- Do not substitute urinary biomarkers for cystoscopy to investigate suspected bladder cancer or for follow-up after treatment for bladder cancer, except in the context of a clinical research study
- Offer white-light-guided TURBT with one of photodynamic diagnosis, narrow-band imaging, cytology or a urinary biomarker test (such as UroVysion using fluorescence in-situ hybridization [FISH], ImmunoCyt or a nuclear matrix protein22 [NMP22] test) to people with suspected bladder cancer

Diagnosing and staging bladder cancer

- Obtain detrusor muscle during TURBT
- Do not take random biopsies of normal-looking urothelium during TURBT unless there is a specific clinical indication (for example, investigation of positive cytology not otherwise explained)
- Record the size and number of tumours during TURBT

Diagnosing and staging bladder cancer

- **Staging**
- Consider further TURBT within 6weeks if the first specimen does not include detrusor muscle

Treating non-muscle-invasive bladder cancer: high risk

- Urothelial cancer with any of:
- pTaG3
- pT1G2
- pT1G3
- pTis (CIS)
- aggressive variants of urothelial carcinoma, for example micropapillary or nested variants

Treating non-muscle-invasive bladder cancer: low risk

- Urothelial cancer with any of:
- solitary pTaG1 with a diameter of less than 3cm
- solitary pTaG2 (low grade) with a diameter of less than 3cm
- any papillary urothelial neoplasm of low malignant potential

Treating non-muscle-invasive bladder cancer: intermediate risk

- Urothelial cancer that is not low risk or high risk, including:
- solitary pTaG1 with a diameter of more than 3cm
- multifocal pTaG1
- solitary pTaG2 (low grade) with a diameter of more than 3cm
- multifocal pTaG2 (low grade)
- pTaG2 (high grade)
- any pTaG2 (grade not further specified)
- any low-risk non-muscle-invasive bladder cancer recurring within 12months of last tumour occurrence

Prognostic markers and risk classification

- Ensure that for people with non-muscle-invasive bladder cancer all of the following are recorded and used to guide discussions, both within multidisciplinary team meetings and with the person, about prognosis and treatment options:
- recurrence history
- size and number of cancers
- histological type, grade, stage and presence (or absence) of flat urothelium, detrusor muscle (muscularis propria), and carcinoma in situ
- the risk category of the person's cancer
- predicted risk of recurrence and progression, estimated using a risk prediction tool

Follow-up after treatment for non-muscle-invasive bladder cancer

- **Low-risk non-muscle-invasive bladder cancer**
- Offer people with low-risk non-muscle-invasive bladder cancer cystoscopic follow-up 3months and 12months after diagnosis
- Do not use urinary biomarkers or cytology in addition to cystoscopy for follow-up after treatment for low-risk bladder cancer.
- Discharge to primary care people who have had low-risk non-muscle-invasive bladder cancer and who have no recurrence of the bladder cancer within 12months.
- Do not offer routine urinary cytology or prolonged cystoscopic follow-up after 12months for people with low-risk non-muscle-invasive bladder cancer

Follow-up after treatment for non-muscle-invasive bladder cancer

- **Intermediate-risk non-muscle-invasive bladder cancer**
- Offer people with intermediate-risk non-muscle-invasive bladder cancer cystoscopic follow-up at 3, 9 and 18months, and once a year thereafter
- Consider discharging people who have had intermediate-risk non-muscle-invasive bladder cancer to primary care after 5years of disease-free follow-up.

Follow-up after treatment for non-muscle-invasive bladder cancer

- **High risk non-muscle-invasive bladder cancer**
- Offer people with high-risk non-muscle-invasive bladder cancer cystoscopic follow-up:
- every 3months for the first 2years then
- every 6months for the next 2years then
- once a year thereafter

Treating muscle-invasive bladder cancer

- Ensure that a specialist urology multidisciplinary team reviews all cases of muscle-invasive bladder cancer, including adenocarcinoma, squamous cell carcinoma and neuroendocrine carcinoma, and that the review includes histopathology, imaging and discussion of treatment options.

Follow-up after treatment for muscle-invasive bladder cancer

- For men with a defunctioned urethra, urethral washing for cytology and/or urethroscopy annually for 5years to detect urethral recurrence.

- Clinical management algorithms available in the guideline

Research recommendations

1. Patient satisfaction
2. BCG or primary cystectomy in high-risk non-muscle-invasive bladder cancer
3. Follow-up of high-risk non-muscle-invasive bladder cancer

Cystoscopic follow-up at 3, 6, 12, 18, 24, 36 and 48months, and then annually, interspersed with non-invasive urinary tests. OR

Cystoscopic follow-up at 3, 6, 9, 12, 15, 18, 21, 24, 30, 36, 42 and 48months, and then annually thereafter.

4. Biomarkers for treatment selection
5. Follow-up after radical treatment for organ-confined muscle-invasive bladder cancer

Summary

- Guidelines provide best available evidence for clinical practice
- Aims to reduce variation in clinical management
- Patients, lawyers & the Press read the guidelines
- May be used for clinical audit, research and evidence of following good clinical practice for external review
- Quality standard expected to be published Dec 2015


Thank you!