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Use of Adjuvant Chemotherapy Following Cystectomy in Patients with Deep Muscle-Invasive Transitional Cell Carcinoma of the Bladder

Practice Guideline Report #3-2-1

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SUMMARY

Guideline Question

What is the role of adjuvant chemotherapy in the treatment of patients with deep muscle-invasive transitional cell carcinoma of the bladder (pT2b or pT3 or pT4 and pN0-pN2)* who have undergone cystectomy? Overall survival, disease-free survival, adverse effects, and quality of life are the outcomes of interest.

Target Population

These recommendations apply to adult patients with deep muscle-invasive transitional cell carcinoma of the bladder (defined as pT2b or pT3 or pT4 and pN0-pN2* only) who have undergone cystectomy. They do not apply to adult patients with superficial muscle invasion (pT2a).

Recommendations

- Post-surgical adjuvant chemotherapy should not be routinely offered to this group of patients.
- It is reasonable to consider the use of adjuvant chemotherapy in high-risk patients for improvement of disease-free survival, provided there is full discussion of the lack of overall survival benefit and the associated risks and toxicities.

Qualifying Statements

- The Genitourinary Cancer Disease Site Group (GU DSG) did not identify any trials that directly compared different chemotherapy regimens in this patient population. If chemotherapy is opted for, the GU DSG recommends the use of a cisplatin-based combination chemotherapy regimen such as methotrexate-vinblastine-doxorubicin-cisplatin (MVAC) or cisplatin-methotrexate-vinblastine (CMV).

* Sobin LH, Wittekind CH, editors. TNM Classification of Malignant Tumors, 5th ed. Toronto: J. Wiley; 1997. p.187-90.

- Randomized controlled trials of gemcitabine-cisplatin and dose-intensive MVAC plus granulocyte-colony stimulating factor in the setting of metastatic transitional cell bladder cancer provide indirect evidence that these regimens could offer equivalent benefit to MVAC or CMV, but with less toxicity, in patients with muscle-invasive disease. The effectiveness of these regimens in the adjuvant setting after cystectomy is currently being evaluated in a randomized trial.

Methods

Entries to MEDLINE (1985 through October 2002), CANCELIT (1985 through October 2002), and the Cochrane Library (2002, Issue 4) databases were systematically searched for evidence relevant to this practice guideline report.

Evidence was selected and reviewed by three members of the Practice Guidelines Initiative's GU DSG and methodologists. This practice guideline report has been reviewed and approved by the GU DSG, which comprises medical and radiation oncologists, urologists, and two patient representatives.

External review by Ontario practitioners was obtained through a mailed survey. Final approval of the practice guideline report was obtained from the Practice Guidelines Coordinating Committee.

The Practice Guidelines Initiative has a formal standardized process to ensure the currency of each guideline report. This process consists of periodic review and evaluation of the scientific literature and, where appropriate, integration of this literature with the original guideline information.

Key Evidence

- Results from four small, randomized studies do not provide conclusive evidence of a survival advantage for adjuvant chemotherapy compared with observation. Three of the four trials provide evidence of significantly longer disease-free survival in patients treated with adjuvant chemotherapy, compared with observation.

Future Research

These recommendations do not preclude the use of adjuvant chemotherapy in the context of clinical trials. The GU DSG encourages patient enrolment in clinical trials.

Related Guidelines

Practice Guidelines Initiative's Practice Guideline Report #3-2-2: *Use of Neoadjuvant Chemotherapy in Transitional Cell Carcinoma of the Bladder.*

For further information about this practice guideline report, please contact: Dr. Himu Lukka, Chair, Genitourinary Cancer Disease Site Group, Hamilton Regional Cancer Centre, 699 Concession Street, Hamilton ON, L8V 5C2; TEL (905) 387-9711 ext. 67699; FAX (905) 575-6326.

*The Practice Guidelines Initiative is sponsored by:
Cancer Care Ontario & the Ontario Ministry of Health and Long-term Care.*

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PREAMBLE: About Our Practice Guideline Reports

The Practice Guidelines Initiative (PGI) is a project supported by Cancer Care Ontario (CCO) and the Ontario Ministry of Health and Long-Term Care, as part of the Program in Evidence-based Care. The purpose of the Program is to improve outcomes for cancer patients, to assist practitioners to apply the best available research evidence to clinical decisions, and to promote responsible use of health care resources. The core activity of the Program is the development of practice guidelines by multidisciplinary Disease Site Groups of the PGI using the methodology of the Practice Guidelines Development Cycle.¹ The resulting practice guideline reports are convenient and up-to-date sources of the best available evidence on clinical topics, developed through systematic reviews, evidence synthesis and input from a broad community of practitioners. They are intended to promote evidence-based practice.

This practice guideline report has been formally approved by the Practice Guidelines Coordinating Committee, whose membership includes oncologists, other health providers, community representatives and Cancer Care Ontario executives. Formal approval of a practice guideline by the Coordinating Committee does not necessarily mean that the practice guideline has been adopted as a practice policy of CCO. The decision to adopt a practice guideline as a practice policy rests with each regional cancer network that is expected to consult with relevant stakeholders, including CCO.

Reference:

1. Browman GP, Levine MN, Mohide EA, Hayward RSA, Pritchard KI, Gafni A, et al. The practice guidelines development cycle: a conceptual tool for practice guidelines development and implementation. *J Clin Oncol* 1995;13(2):502-12.

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