



**Title**            **Chemotherapy for Cancer**  
**Agencies**       **SBU, Swedish Council on Technology Assessment in Health Care**  
PO Box 5650, Tyrgatan 7, SE-114 86, Stockholm, Sweden; Tel:+46 8 412 3200,  
Fax:+46 8 411 3260; info@sbu.se, www.sbu.se  
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## Aim

To systematically review the literature on cancer chemotherapy in certain major tumor groups, to describe the practice of chemotherapy in Sweden, to compare practice with scientific knowledge, and to analyze the costs and cost effectiveness of chemotherapy.

## Conclusions and results

- Chemotherapy plays a well-documented role in the curative and palliative treatment of patients with certain types of cancer.
- Side effects from chemotherapy are common. This creates a difficult balance between the benefits and risks of treatment and is of particular concern in palliative treatment.
- Chemotherapy in Sweden is practiced generally in accordance with the evidence presented in the scientific literature. Overutilization and underutilization appear to be marginal.
- Since cancer treatment is far from achieving total success, there is a major need for further research.
- Well-documented studies have shown relatively minor palliative effects of treatment with newer drugs or with older drugs in new therapeutic situations. A survey of current practice in Sweden shows that, in these cases, chemotherapy was delivered to a small percentage of the patients. If such treatment would be offered to all patients, it would require either investing more resources in health care or redistributing resources within the healthcare sector. It is essential to openly discuss the consequences of such options.
- The cost of chemotherapy in relation to its benefits may be perceived as high, but is not notably different than the cost of treating many other diseases.

## Methods

The extensive body of scientific literature was reviewed according to strict criteria that reflected the scientific weight of the literature. Studies published through 1998 were searched through Medline, Cancerlit, and the Cochrane Library. The data search for controlled clinical trials covered at least the past 20 years. Literature reviews were also studied. References cited in the reviewed literature were used to identify and review older, yet important reports. The systematic review is based on results from 1496 studies involving 558 743 patients.

## Further research/reviews required

A major need exists for controlled clinical trials. When appropriate, such trials should include an assessment of the impact on patients' quality of life (QoL) and economic consequences in conjunction with cancer treatment. Assessment of QoL is clearly in need of further methodological development to be able to report reliable data. Since cancer treatment is far from successful in all cases, there is a need for further research. The survey showed that only about 10% of the treatments were given within clinical trial protocols aimed at further clarifying treatment effects. The figure should be considerably higher.