

CHEMOTHERAPY: LETHAL SIDE EFFECTS AND EFFICACY

Iatrogenic deaths of patients killed within 30 days of initiation of cytotoxic chemotherapy as a direct result of them receiving either palliative or curative chemotherapy itself (as separated from their deaths as an outcome of their active cancer disease), are journal and government health authority reported.

Tens or hundreds of thousands of patients are killed worldwide every year as a side effect of standard chemotherapy cancer treatment itself. Australia is no exception to these data.

Each year, about 650,000 cancer patients receive chemotherapy in outpatient oncology clinics alone (not including those while hospitalized), in the United States.

<https://www.cdc.gov/cancer/preventinfections/providers.htm>

Over 680,000 chemotherapy procedures are typically performed each year, in Australia.

<https://www.aihw.gov.au/getmedia/8c9fcf52-0055-41a0-96d9-f81b0feb98cf/aihw-can-123.pdf.aspx?inline=true>

A real iatrogenic death rate that ranges between the reported extremes of approximately 4-20%, largely depending on study size, means that between 2720 to 13600 patients are killed by the chemotherapy drugs themselves within 30 days, in Australia alone, yearly.

A 2006 audit looked at the response rate to chemotherapy for heavily pretreated breast cancer patients: https://ascopubs.org/doi/abs/10.1200/jco.2006.24.18_suppl.657

<https://pubmed.ncbi.nlm.nih.gov/17160081>

For patients receiving third-line chemotherapy for metastatic disease, who have achieved at best stable disease in previous lines of metastatic treatment, the response rate to this line of therapy is 20%, with a time to progression of 3 months and a median survival of 6 months. **The results of this audit suggest that the rate of death within 30 days of treatment in this group of third line chemotherapy treatment patients is not insignificant at 12.6%.** The potential fatal complications of treatment must be balanced with the low chance of benefit from treatment and require honest discussion with the patient.

Chemotherapy Warning: Hundreds die from cancer drug treatment:

Patients should be warned about undergoing chemotherapy after research showed the cancer treatment - not the cancer itself - was killing hundreds patients. Lung and breast cancer mortality rates have been red-flagged at nineteen hospital trusts in England, which have been told to review the cancer treatment they offer patients. Research, published in The Lancet Oncology Journal, found the trusts which run the hospitals had higher rates of 30-day mortality after chemotherapy for lung and breast cancer than expected.

The study, by Public Health England and Cancer Research UK, looked at more than 23,000 women with breast cancer and nearly 10,000 men with 9634 non-small cell lung cancer who underwent chemotherapy in 2014. **Of those treated 1,383 died within 30 days. It revealed that around 8.5 per cent of patients with lung cancer and 2.5 per cent of patients with breast cancer died within 30 days of being treated.**

<https://www.express.co.uk/life-style/health/705615/chemotherapy-treatment-cancer-drugs-hundreds-die-public-health>

<https://www.telegraph.co.uk/science/2016/08/30/chemotherapy-warning-as-hundreds-die-from-cancer-fighting-drugs/>

In a retrospective study of 1103 patients received **systemic anticancer treatment (SACT)** in Whangarei Base Hospital, New Zealand, with 57 patients dying within 30 days of treatment, resulting in a composite 30-day mortality rate of 5.17% from chemotherapy itself. One patient died receiving curative intent SACT. More deaths occurred in SACT-naïve patients and during the first two cycles of therapy. **Of the deaths, 28% was attributed to SACT**, while 59.7% was attributed to cancer progression. The WBH electronic database was searched to identify all patients who had received SACT in WBH from 1 January 2012 to 31 December 2016. Patients who died within 30 days of their last treatment were shortlisted. Records were reviewed identifying key demographic, disease, treatment and mortality data. Composite 30-day mortality index and that of each tumour stream were calculated. Key findings were described using descriptive statistics.
<https://onlinelibrary.wiley.com/doi/pdf/10.1111/imj.13618>

New findings on post-chemotherapy deaths using world-first PHE cancer data, UK:
Main findings: Most of the people who died within 30 days were receiving palliative treatment: **569 breast cancer patients and 720 lung cancer patients**. There were also deaths in those patients given treatment with the intention to cure: **41 breast cancer patients and 53 lung cancer patients**.
<https://www.gov.uk/government/news/new-findings-on-post-chemotherapy-deaths-using-world-first-phe-cancer-data>

Efficacy:

The contribution of cytotoxic chemotherapy to 5-year survival in adult malignancies:
Cytotoxic chemotherapy is regularly given to patients with a diagnosis of cancer disease in Australia. **The overall contribution of curative and adjuvant cytotoxic chemotherapy to 5-year survival in adults in Australia has been estimated to be 2.3%. As the 5-year relative survival rate for cancer in Australia is now over 60%, it is clear that cytotoxic chemotherapy only makes a minor contribution to cancer survival. To justify the continued funding and availability of drugs used in cytotoxic chemotherapy, a rigorous evaluation of the cost-effectiveness and impact on quality of life is urgently required.**
<https://pubmed.ncbi.nlm.nih.gov/15630849/>