



## Podcast transcript:

### Reducing uncertainties about the effects of chemoradiotherapy for cervical cancer: individual patient data meta-analysis

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#### *Clinical considerations*

Cervical cancer is the second most common cancer among women worldwide, and is the main cancer affecting women in parts of the developing world.

Women with cervical cancer are treated with surgery, radiotherapy, chemotherapy or a combination of these treatments, largely dependent upon the stage or spread of the tumour and the woman's general health.

In 1999, 5 randomised trials showed improved survival by combining cisplatin-based chemotherapy with radiotherapy. This led the US National Cancer Institute to recommend that concomitant cisplatin-based chemoradiotherapy should be considered instead of radiotherapy alone for women with cervical cancer. However, there was considerable variation between the individual trials, and many other trials of the same question had not been evaluated.

A previous Cochrane review comparing chemoradiotherapy with radiotherapy was based on published data. It showed a benefit of chemoradiotherapy for both survival and recurrence, but with a lot of heterogeneity in the results. Interpretation was complicated because of variation across the trials in the treatments used for the control groups, the radiotherapy and chemotherapy schedules and doses.

We decided to tackle this by collecting and re-analysing individual patient data from all randomised trials. Researchers from 11 countries provided data from 18 trials, including more than 4,800 women. This allowed us to produce the most reliable estimate of the effect of chemoradiotherapy in women with cervical cancer to date, although we were not able to investigate late complications because of a lack of sufficient data from the trials.

We found a survival benefit of chemoradiotherapy such that, five years after being treated, 66 out of every 100 women who received chemoradiotherapy were still alive compared with 60 out of every 100 who just had radiotherapy.

Chemoradiotherapy also reduced the risk of local recurrence and, to a lesser degree, metastases. There was a benefit of chemoradiotherapy whether cisplatin-based chemotherapy or other types of chemotherapy (notably 5FU or mitomycin C) had been used. This is important as a number of women are unable to tolerate cisplatin-based therapy.

We found that the effect of chemoradiotherapy was greater when additional chemotherapy was given after the chemoradiotherapy. However, this is based on only 2 trials and further randomised trials are needed. We also found that there did not seem to be any impact of different radiotherapy schedules or doses, although there was less power in these analyses. Women with all stages of cancer assessed seemed to benefit, although the benefit was smaller in women with later stages of disease.

The review endorses the recommendations of the NCI, but adds reliability and precision regarding the effects of chemoradiotherapy, and demonstrates both their applicability to all women with cervical cancer and a benefit of non-platinum-based chemoradiotherapy.