

Metronomic chemotherapy, often used after surgical removal of tumours (eg carcinomas)

When most people think of chemotherapy, they think of high dose injections of nasty medications that make you feel lousy and make all your hair drop out. Metronomic chemotherapy still uses cytotoxic (“cell-killing”) agents, which target growing/dividing cells, but these are given by a different strategy. **Metronomic chemotherapy** is the continuous administration of low doses of oral **chemotherapy** drugs designed to impede the development of blood vessels supplying tumour cells, which impedes tumour growth. Using lower doses minimises the collateral damage caused to normal cells.

The truth is that we have limited information on the benefits of metronomic chemotherapy -it's early days. However it has been used in a wide variety of tumour types. Mostly we are using it in circumstances where there are few other options: for inoperable or incompletely excised tumours or where we know that tumour recurrence is likely. And because adverse effects are relatively uncommon it can be an option well worth considering for these patients.

Metronomic chemotherapy in veterinary medicine has been tried with low doses of oral cyclophosphamide, lomustine, chlorambucil, melphalan or toceranib -often combined with a non-steroidal anti-inflammatory drug like meloxicam or firocoxib.

Metronomic chemotherapy is long-term therapy that requires regular monitoring for signs of drug intolerance. We typically ask that patients are examined and have blood tests for biochemistry and haematology on a regular basis.

Metronomic chemotherapy drugs, like other cytotoxic agents, are potentially harmful to humans. Young, old, pregnant and immune-suppressed people are most vulnerable and should not be in contact with urine / faeces from patients undergoing chemotherapy.

Encourage urination / defaecation on grass rather than non-absorbent surfaces.

These drugs are being administered continuously so assume they are being excreted continuously too.

Use disposable gloves and scoops to handle urine / faeces. Contain and absorb any soiling rather than spreading it.

Solid waste should be disposed of down the toilet or double bagged and disposed of in domestic refuse.

We advise to supervise contact of the pet with young children to avoid face licking etc and ensure regular hand washing.