

## A new drug to prevent vomiting from cancer treatment

Vomiting after drug treatment for cancer used to be a major problem. However 2 different types of drugs were introduced which reduced this vomiting. The first was ondansetron which was very effective for the vomiting which occurred within a few hours and up to a day after cancer drug therapy, when given before anticancer drugs which would otherwise cause moderate or severe vomiting. Several different brands of this type of drug have been produced and are given with steroids to improve their effectiveness. The second, aprepitant, controlled the delayed vomiting which after starts after the first day and can last up to 5 days. Both of these drugs could be taken by mouth or injected depending on which was most convenient.

The next development was a drug called palonosetron, a longer lasting form of the first drug which was more effective than ondansetron particularly when given to prevent the early vomiting after cancer therapy which was likely to cause a moderate amount of vomiting. Now there is a new drug, rolapitant, which is a longer lasting form of the aprepitant and should prevent the delayed vomiting.

There have been 3 trials to test how effective rolapitant is when added to one of the drugs designed to control early vomiting plus steroids with which these drugs for early vomiting are given, compared to just the two drugs alone. Two trials were to test adding rolapitant by giving it before treating with cancer drugs with a high chance of causing vomiting. These trials showed that adding rolapitant to the 2 drugs improved the control of the delayed vomiting. The other trial was similar but given before cancer drugs with a moderate chance of causing vomiting. Again adding the rolapitant was more effective. This benefit was achieved without adding to the side effects from the drugs used to prevent vomiting. Nausea, the sensation of feeling as though vomiting could occur, was not as well controlled as vomiting itself.

What needs to occur now is further trials which compared rolapitant with the shorter acting aprepitant to see if there is an advantage to the longer acting drug. Then it would be helpful to combine palonosetron, the longer acting drug to prevent early vomiting, with this new longer acting drug rolapitant, which prevents the delayed vomiting, to see if both together are better at preventing overall vomiting after anticancer drugs, compared to combinations using the shorter acting counterparts. Maybe the steroids which are routinely combined with ondansetron and can have troublesome side effects could be reduced if the two long acting drugs together prove very effective.

There is a further advantage to rolapitant, and that is it does not interfere with the doses of other drugs which can be a problem with aprepitant. This is because of a different way that rolapitant is processed in the body. However, the further trials will determine whether rolapitant will become a drug routinely used to reduce the vomiting which is caused by anticancer drugs.

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## **Publication**

[Role of rolapitant in chemotherapy-induced emesis.](#)

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