

ISMP Canada Safety Bulletin

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Published Data Supports Dispensing Vincristine in Minibags as a System Safeguard

Many of us are familiar with the accidental deaths that have been reported when vincristine, intended for I.V. use, was inadvertently administered intrathecally. A recently published article in *Hospital Pharmacy*, by Trissel and Cohen¹, suggests a strategy for minimizing the risk for recurrence of such an error. The article confirms the stability of vincristine when diluted to 25mL with normal saline, and suggests that the larger volume of diluted vincristine is less likely to result in a 'mix-up' in route of administration. The use of additional auxiliary warning labels when dispensing vincristine continues to be recommended.

An editorial by Neil Davis², in the same issue of *Hospital Pharmacy*, mentions that the MD Anderson Cancer Center in the U.S. has been preparing vincristine doses with 25mL normal saline in minibags for more than 20 years. The decision to dispense vincristine in minibags was made to prevent inadvertent intrathecal administration. Now that stability data is available, and published, this dispensing practice can be adopted by other facilities.

Berwick³, and many others, have suggested that the ideal system safeguard against accidental intrathecal administration of I.V. drugs, is to have unique and non-interchangeable connections. This is described as a "forced function design" safety improvement. Until such time as there are separate drug administration systems for I.V. versus intrathecal administration, the preparation of vincristine in minibags, instead of syringes, is a medication safety practice recommendation to be considered by all facilities preparing chemotherapy.

¹ Trissel LA, Zhang Y, Cohen MR. The stability of diluted vincristine sulfate used as a deterrent to inadvertent intrathecal injection. *Hosp Pharm.* 2001;36:740-5

² Davis, NM. The preparation of vincristine in minibags will prevent deadly Medication Errors. *Hosp Pharm.* 2001;36:707

³ Berwick, DM. Not Again! Preventing Errors Lies in Redesign – not exhortation. *BMJ* 2001;322:247-248