

Rapid Response Report

NPSA/2008/RRR004

From reporting to learning

11 August 2008

Using Vinca Alkaloid Minibags (Adult/Adolescent Units)

Issue

There have been further reports of fatal and serious incidents from hospitals outside the UK in which doses of vinca alkaloids intended for intravenous administration have been administered by the intrathecal (spinal) route in error. These include three cases where doses of vincristine had been diluted to 10ml and 20ml in syringes.

Previous guidance to the NHS in England and Wales was to dilute doses of vinca alkaloids to 10ml or greater in a syringe in order to reduce the risk of wrong route errors. This guidance needs to be updated following the learning from these incidents in other countries. The World Health Organisation (WHO) has issued guidance (see supporting information) recommending that doses of vinca alkaloids should be prepared and administered in intravenous minibags to further minimise the risk of wrong route errors.

Vinca alkaloids have been administered intravenously in minibags in hospitals in other countries for many years. There have been no reported incidents where vinca alkaloids in minibags have been wrongly administered by the intrathecal route. There is also evidence that administering vinca alkaloids intravenously in minibags does not increase the incidence of extravasation. A Department of Health multidisciplinary clinical advisory panel has reviewed and supports the WHO recommendation to use minibags for intravenous administration of vinca alkaloids in adult and teenage patients who are treated in adult and adolescent units. They have also advised that the practical difficulties of preparing and administering intravenous infusions of vinca alkaloids to treat children (0-16 years) outweigh the benefits. For this reason the use of minibags to administer treatment to children in paediatric units is NOT recommended.

Scope of Guidance

This guidance applies to the use of the vinca alkaloids vincristine, vinblastine, vindesine and vinorelbine in adult and teenage patients being treated in adult and adolescent chemotherapy units. The guidance applies to all healthcare organisations irrespective of whether they also administer intrathecal chemotherapy. It does not apply to children and teenagers being treated in a paediatric unit where minibags are not being recommended to administer vinca alkaloids.

For recommended forms of treatment, see Table 1 overleaf.

For IMMEDIATE ACTION by the NHS and the independent sector. The deadline date for ACTION COMPLETE is 6 February 2009.

This guidance applies to all staff who prescribe, dispense or administer intravenous vinca alkaloid chemotherapy to adult and/or teenage patients. Actions should be co-ordinated by the Chief Pharmacist supported by the Chief Executive, Medical Director, Nursing Director and Clinical Governance/Risk Manager (or their equivalents).

When vinca alkaloids are prescribed, dispensed or administered in adult and adolescent units:

- Doses in syringes should no longer be used.
- The prescribed dose should be supplied from the hospital pharmacy ready to administer in a 50ml minibag of sodium chloride 0.9% (for some brands of vinorelbine glucose 5% solution for injection may be used instead of sodium chloride 0.9%).
- The following warning should be prominently displayed on the label of ALL vinca alkaloid doses 'For Intravenous Use Only – Fatal If Administered by Other Routes'.
- There should be judicious use of colour and design on the label, outer packaging and delivery bags to further differentiate minibags containing vinca alkaloids from other minibag infusions.
- The vinca minibag should be infused intravenously over 5 - 10 minutes and the patient closely monitored for signs of extravasation. Incidents of extravasation should be reported and shared via the National Extravasation Information Service (www.extravasation.org.uk).
- Chemotherapy policies and procedures should be amended to reflect these requirements.
- Staff should be alerted and trained to follow the new practice.
- Practice should be audited to ensure compliance with the revised safety procedure.

The development of a new connector for spinal/epidural administration

A Department of Health project to develop, trial and evaluate a new connector design to further reduce the risk of wrong route errors with spinal/epidural medical devices will be completed by summer 2008. The NPSA is planning to lead a purchasing for safety initiative and work with the healthcare industry to obtain devices with safe connectors for use in the NHS over the next three years.

Further Information

Support information on this Rapid Response Report, is available at <http://www.npsa.nhs.uk/patientsafety/alerts-and-directives/rapidrr>
Further queries should be directed to **Prof David Cousins** c/o rrr@npsa.nhs.uk; Telephone 020 7927 9890.

NPSA has informed

NHS Organisations, the Independent Sector, commissioners, regulators and relevant professional bodies in England and Wales.

Table 1: Summary of recommendations for treating patients with intravenous vinca alkaloids

		Patient Type		
		Adult	Teenager	Child
Clinical Area/ Unit	Adult unit	Vinca dose in a 50ml minibag	Vinca dose in a 50ml minibag.	Children should not be treated in adult clinical areas. In the unlikely situation that this requirement should arise a local risk assessment should be undertaken to determine the safest method of treatment.
	Adolescent unit	n/a	Vinca dose in a 50ml minibag.	Children should not be treated in adolescent clinical areas. In the unlikely situation that this requirement should arise a local risk assessment should be undertaken to determine the safest method of treatment.
	Child unit	n/a	Vinca dose in a syringe (No change to current practice).	Vinca dose in a syringe (No change to current practice).