

GOOD MANAGEMENT



Expanding waste lines

Complicated new regulations regarding refuse disposal pose problems for healthcare staff. Ian Blenkarn grapples with the distinctions between hazardous and non-hazardous wastes

In acute hospitals, clinical wastes comprise around 40 per cent of the total solid wastes but are responsible for more than 60 per cent of disposal costs. Over several decades, attention has focused on the correct segregation of clinical wastes, separating them from more general

refuse items and disposing of them into clearly identifiable containers.

These colour-coded yellow sacks and sharps bins, reserved exclusively for such wastes, are then removed for specialised treatment often by high temperature incineration.

The special care needed to dispose of clinical wastes safely, which inevitably demands substantial additional resources, is justified by the clear risks of infection or other adverse health effects. Foremost among these is needlestick injury that may result in transmission of potentially life-

threatening bloodborne virus infections such as hepatitis B, hepatitis C or HIV infection.

New regulations come into force in July. The Hazardous Waste Regulations 2004 define hazardous waste as those having one or more properties that are hazardous to health or to the environment, as documented in the European waste catalogue. The implications for clinical wastes management are, in great part, incompatible with contemporary healthcare practice.

The regulations place additional controls on the disposal of certain

wastes. Thus, wastes subject to special requirements in order to prevent infection (EWC 18 01 03) are defined as hazardous and subject to additional control. By contrast, wastes whose collection and disposal is not subject to special requirements in order to prevent infection – for example wound dressings, plastercasts, linen, disposable clothing, sanitary and incontinence wastes (EWC 18 01 04), sharps (EWC 18 01 01), and body parts and organs including blood bags and blood preserves (EWC18 01 02) – are considered non-hazardous.

Contamination control

There is, however, provision to reclassify these groups when an additional infection hazard is recognised and EWC 18 01 03 may apply. Clinical wastes defined as hazardous wastes may require additional care and control in their terminal destruction.

There may be corresponding constraints on the transfer, transport and storage of hazardous wastes, most likely requiring complete separation from non-hazardous clinical wastes, in order to ensure correct processing and to avoid cross-contamination.

Additional administrative obligations require Environment Agency notification of sites generating hazardous wastes.

Classifications provided by the European waste catalogue are clear and largely unambiguous, but how can we know which classification should apply to individual items of waste? Though the classification provides cautionary exclusions that impose additional control to wastes subject to 'special requirements in order to prevent infection' it proposes also that sharps, tissue wastes and blood/body fluids where infection is not considered likely can be treated as non-hazardous.

But do we know with any certainty which patients pose a risk of infection? To propose any scheme for the further segregation of clinical wastes on the basis of risk of infection is to negate totally the CDC 'universal precautions for prevention of transmission of HIV and other bloodborne infections'.

A simplistic approach might be

Key points

- New waste regulations are largely incompatible with current healthcare.
- There are questions over how members of staff will be able to classify waste.
- The regulations also pose logistical problems and space constraints.

based on reasoned expectation of the type of the micro-organism that might be present, and their concentration in the waste. Thus, sharps used for patients known or expected to be infected with, for example HIV or hepatitis B or C viruses are potentially infective and classified as hazardous wastes. But what of those individuals with undiagnosed infection?

Who shall make this judgement, and when shall the decision be made? The Environment Agency provides extensive guidance on the hazard classification of clinical and other wastes. It is made clear that waste classification should be based on clinical judgement and formal risk assessment. This might suppose a reasoned judgement required of each staff member, at the time of disposal of clinical wastes. However, in all acute healthcare establishments a site-wide classification of clinical wastes as hazardous, within the meaning of the Hazardous Waste Regulations, is likely to provide the only safe approach.

Practical issues arise. To segregate sharps and other clinical wastes on the basis of known or presumed risk of infection, however that may be defined, requires two containers at each where currently there is only one. Each type of container must be clearly identified. Space constraints and logistics issues become critical, making the additional EWC distinctions impractical.

It is an underlying premise of the Hazardous Waste Regulations that the risks from clinical wastes categorised as non-hazardous may be no greater than domestic refuse. Unfortunately, having adopted the dual classification scheme of the European waste catalogue, if infection does result from exposure to clinical wastes defined as 'not having special requirements in order to prevent infection', the courts may assume a breach in duty of care.

Health and safety legislation has been used to bring successful prosecution of trusts in breach of Section 3 sub-section 1, of the Health and Safety at Work Act 1974. The act places on every employer 'a duty to conduct his undertaking in such a way as to ensure... that persons not in his employment who

may be affected thereby are not thereby exposed to risks to their health or safety'.

Infectious nature

Prosecution followed storage of clinical wastes in areas freely accessible to the public. No mitigation was entertained on the basis of the infectious nature of the waste, or lack of it, or of the actual or potential hazards involved.

Thus in health and safety legislation, clinical wastes are deemed a potential hazard to health. Trusts must exercise a duty of care to ensure waste is properly managed, so as to ensure the safety of employees and others. It is questionable if this duty of care will be satisfactorily discharged if some wastes are managed to a lesser standard, based on an arbitrary and ill-defined

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categorisation. The solution is simple. With few exceptions, an all-embracing site-wide policy for the disposal of clinical wastes to a single hazardous waste stream avoids the possibility of infectious wastes disposed to a lesser waste stream that is subject to a reduced standard of care throughout the onward disposal chain. Choice in disposal is removed. The possibility of error in classification between hazardous and non-hazardous is eliminated, ensuring all clinical wastes are handled and disposed with due care. ●

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Find out more

Special waste regulations guidance
→ www.defra.gov.uk/environment/waste/special

Environment Agency business pages
→ www.environment-agency.gov.uk/business