



Clinical Waste Discussion Forum

An occasional newsletter from the Clinical Waste Discussion Forum

Visit us at <http://www.ianblenkharn.com>

Number 2: June 2006

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Please support the **Clinical Waste Discussion Forum**

Tell you colleagues, please display this Newsletter, and put a link on your own web site



I am delighted to welcome you to the second edition of the **Clinical Waste Discussion Forum** Newsletter. It will be distributed by email to those who have signed up for a copy at <http://www.ianblenkharn.com>, and will be posted on that web site for download by others who may wish to read a copy.

The **Clinical Waste Discussion Forum** is proving to be very popular. Analysis of server data shows many visits, and repeat visits, with an increasing long dwell time. The long-term success of the Forum is critically dependent on its' contributors – please do post a message, respond to existing messages, ask or answer a question, get things off you chest - make your point!

Please do pass on this newsletter to your colleagues, and to others who you think may be interested. It is intended to inform, to bring people together, and of course to encourage contributions to the **Clinical Waste Discussion Forum**. The more the better, so please do spread the word and support us.

Ian Blenkharn

Questions.....and Answers!

One of the main reasons for creating the **Clinical Waste Discussion Forum** was to bring together different groups and professions, to share their experiences and expertise, and to provide a forum for the exchange of information. It is a great place to ask a question, and to get answers that represent a distillation of experiences from, hopefully, a broad range of viewpoints. Do ask, and do share your experiences by providing an answer or opinion; challenge an answer provided by somebody else; make your point, and get it off your chest!

We need your help

The **Clinical Waste Discussion Forum** will only be as good as its contributors. Though statistics show we have a good number of visitors, and some people have chose to contact me directly about issues raised in or relevant to the Forum, the

Already, the **Clinical Waste Discussion Forum** has received specific questions, and correspondents have received their answers. Questions so far include:

- safe handling and disposal of IV lines
- how to interpret the List of Wastes
- is biggest always best?
- disposal of single-use surgical instruments
- clinical wastes in the community

Please do join in the discussions. Keep up to date; seek advice; give your opinion; help others. Contribute!

number of individuals posting messages, or responding to earlier posts, is not as great as we would hope for. Please visit the **Clinical Waste Discussion Forum**, help break the ice and post a message, and encourage others to do likewise.

Thanks to our sponsors

[Cliniserve Limited](http://www.cliniserve.com) have provided generous sponsorship to cover the set-up and management and maintenance costs of the **Clinical Waste Management Forum**. We are tremendously grateful to them for their generosity and support, and for the contributions that the Company and its staff are making to the continuing discussions that appear in the Forum.

Created with the generous support of Cliniserve Limited



Technical issues

Some users of the **Clinical Waste Discussion Forum** may experience difficulties replying to existing posts due to one of the more troublesome default settings of Norton Internet Security.

If you can access the Forum and read messages, but cannot scroll through messages using the [previous] and [next] options, and cannot [reply] to messages, there are a few minor change to make to the Norton Internet Security settings. Details of these changes at <http://www.ianblenkarn.com>.

Change ahead?

Experimenting at present with a radically new format for the **Clinical Waste Discussion Forum**, that offers much greater flexibility for users. Stay tuned.....

Is this YOUR page?

Have you got a burning issue, some good news, an announcement or some information, perhaps some gossip, that you want to share with others. Well, the first stop must be a message posted to the **Clinical Waste Discussion Forum**. But if you want to follow up with a more detailed entry in this Newsletter, please do get in touch.

There will be a space waiting for your input. The general rules of the **Clinical Waste Discussion Forum** will apply, ie no blatant advertising, honest, decent etc etc (read *The Boring Bit* on page 5). Apart from that, please feel free!

Ian Blenkarn

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Who clears up after an accident?

[The Daily News Journal](#) of Murfreesboro, Tennessee, reported about a new enterprise Bio-Recovery Solutions run by Leslie Wehby, who provides on-site cleaning and decontamination of property from blood, body fluids, projectiles and other potentially bio-hazardous contaminants associated with dead or injured victims. Good luck to her.

With advanced interventions and life support undertaken by our ambulance services, and sadly the increasing incidence of serious vehicle incidents, violence and major trauma, is there a need for this service in the UK? Ambulance service staff are generally rigorous in clearing used medical disposables from the scene of incidents, and the Fire Service are often on hand to hose down large blood spillages. That is probably quite sufficient. But what is the role of local authorities? In the absence of a commercial clean-up service, it is the Local Authority who are there to pick up the pieces, often literally.

And just to satisfy my curiosity, why are there always one or two disposable latex gloves left at the scene? It is so predictable, I wonder if there is something significant about this? Secret signals perhaps - it surely cannot be just chance!

<http://www.ianblenkarn.com>

Useful resources

There may be many resources available to the clinical waste community, some free for use and others chargeable. Information guides, web sites, software tools, catalogues, method sheets, and of course the **Clinical Waste Discussion Forum!**

If you have or know of any tools that might be of value to others please post a message in the Discussion Forum. We will compile a list for the benefit of others who may be unaware them. If you find a particular resource useful, share it with others.

The [Department of Health](#) have released an Excel spreadsheet highlighting the cost to NHS Trusts of MRSA infections, and of all other healthcare-associated infections. The spreadsheet gives numbers of reported cases for 2003/04 and for 2004/05, with projected figures for 2005/06 and 2006/07, and a target for 2007/08. In each case, costs/year are indicated, as potential savings if these infections can be prevented. Also included are a brochure concerning the delivery of "Sustainable Change for Cleaner, Safer Care" and a pocket guide for Chief Executives and Trust Boards - "Meeting the MRSA target and increasing productivity".

Is bigger always better?

It was noted in the **Clinical Waste Discussion Forum** that *Stericycle Inc*, the largest US healthcare waste management services company, announced the purchase of *Sterile Technology Group* (STG), the 2nd largest UK clinical waste management company. In 2004, Stericycle purchased *White Rose Environmental*, then the largest UK clinical waste company. The resulting business expansion creates a *de facto* monopoly that owns and operates about 70% of the UK disposal capacity, with around 23 disposal plants. But is biggest always best?

In an investors broadcast, it was announced that the White Rose purchase amounted only to 10% of the UK market; combining with STG this still only amounted to 20%. What market is being referred to? It might be estimated that combination of both companies amounts to >60% of the disposal market capacity; in terms of incineration probably >80%.

A user of the Forum noted that, after a string of complaints, this is now being looked at by the Competition Commission (previously the Monopolies and Mergers Commission).

To snip or not to snip?

Most IV lines have a metal needle connected to a length of flexible tubing. Their use is becoming ever more widespread, and this brings a new issue to disposal...to snip or not to snip?

A user of the **Clinical Waste Discussion Forum** was not happy with the advice given in their own hospital, and sought advice from others. Cutting off the excess tubing would make placement of the needle into a sharps bin easier (no loops of plastic tubing fighting back and trying to escape from the bin). But to cut the tip off risks extra handling and increases the risk of a sharps injury. There is no simple answer, but it is clear that a wide-mouthed sharps bins would facilitate safe disposal.

How to interpret the List of Wastes

The Environment Agency issued new guidance about interpretation of the List of Wastes (implementing the European Waste Catalogue) to help those producing, carrying or managing waste in England and Wales to code it correctly.

see www.environment-agency.gov.uk/business/444304/444641/595811/1397154/?version=1&lang=e

Guidance should be warmly received since it provides a central framework for coding of wastes, applicable to all producers, and to the Agency's own staff who often seek to impose local decisions varying substantially from central policy. The availability of guidance will be particularly helpful for everyone.

As for all such documents, this will have to be carefully and critically reviewed. With a record of issuing, no doubt with the best of intention, sometimes misleading or frankly incorrect advice (WM2 contained some serious howlers, now discreetly omitted from the current version, that could have put individuals at risk, see [Lowering standards of clinical waste management - Do the Hazardous Waste Regulations conflict with CDC Universal Precautions?](#)) and/or advice that conflicts directly with the safe work of, for example, healthcare workers, it is important that such guidance documents do not assume, passively, a status that creates *de facto* a yardstick against which everything we do must be measured.

I asked visitors to the **Clinical waste Discussion Forum** for their views on this Environment Agency guidance. *Bouquets or brickbats?* I got several direct emails asking for help, and a phone call from someone who wanted to say "Thanks, for standing up and saying what we are not allowed to say", though I never really got to understand we "we" were.

My only criticism relates to the disposal of sharps by tattooists. These may transmit bloodborne virus. Many outbreaks of infection have been reported, and though sterile single-use needles are now mandatory, there is nothing to prevent contamination of needles during use on HIV or Hepatitis B positive clients. In disposal, these needles will be associated with an obvious risk of infection but in their wisdom EA choose to exclude these items from categorisation as clinical wastes, and instead propose:

EW 20 01 99 - "MUNICIPAL WASTES AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES INCLUDING SEPARATELY COLLECTED FRACTIONS, Separately collected fractions, other fractions not otherwise specified."

This is hardly a positive step to safety and the prevention of infection. In fact, I think it might be irresponsible and misguided. It may be a matter of administrative convenience or founded upon flawed judgement. Surely, this classification sends what is probably an entirely inappropriate signal - a single acquired infection occurring in that way would be truly awful, and quite inexcusable.



Legislating for needlesticks?

SNP MEP Ian Hudghton is reported to be backing moves in the European Parliament to tighten-up legislation to protect workers from being infected through injuries from handling contaminated needles. Hudghton - a member of the European Parliament's Employment Committee - supports moves to bring forward better legislation to protect those most at risk.

An [SNP news brief](#) told of Hudghton welcoming a vote to refer proposals back to the Employment Committee, thus thwarting attempts by some Conservative members to water down the legislation. Mr Hudghton said: "It's startling that no specific EU legislation exists to protect workers who handle contaminated needles in the course of their jobs. More startling still when we learn that an estimated one million workers a year suffer 'needlestick injuries', mainly medical and veterinary employees. Many of these injuries could be avoided if appropriate safety measures were introduced, including the use of safer needles, regular safety training and safer working practices. Not only would this lead to a reduction in the number of injuries but also to cost savings."

OK, so employers might be compelled to introduce safer needles, but let's not forget the current NHS financial crisis. High standards of safety can be achieved with conventional needles if these are used, and disposed, with care. Training already takes place, though more would not be inappropriate. So what else will be proposed? Prison sentences or fines for those guilty of dangerous practices, including not only the careless use of hypodermic needles but failure of adequate care in disposal? A high proportion of needlestick injuries are unintentionally self-inflicted, what about those?

Somehow, I imagine legislation will cost much and achieve little. I suspect also that the focus would be directed to the "protection" of our caring hospital nurses and doctors, with far less thought for support staff and those in the waste management sector who are similarly at risk. Why? Because it gets media attention, and that means votes. Perhaps this is an example of yet more costly though misguided and inappropriate legislation from Europe.

Environmentally friendly containers for clinical wastes

Clinical wastes are not environmentally friendly. It's a fact, and little can be done about it. We can work toward waste minimisation but the contribution will be small, and serve mainly to move waste from one waste stream to another. But what about the containers that we use for clinical wastes?

Plastic bags and rigid bins rely heavily on the petrochemical industries. Having been sterilised and shredded most of these end up in the landfill, or are incinerated. Plastic bags and bins are cheap, strong and generally fit for purpose, but carry a heavy environmental cost in manufacture and disposal that cannot be overlooked. As materials science and the packaging industries continue to advance, is it time for a rethink about waste containers, for clinical wastes as well as other more general wastes?

Health on the Net approval for the *Clinical Waste Discussion Forum*



The [Health on the Net Foundation](#) Code of Conduct ([HONcode](#)) for medical and health web sites addresses one of Internet's main healthcare issues: the reliability and credibility of information. The Health On the Net

Foundation is the leading organization promoting and guiding the deployment of useful and reliable online medical and health information, and its appropriate and efficient use. Created in 1995, HON is a non-profit, non-governmental organization, accredited to the Economic and Social Council of the United Nations.

The *Clinical Waste Discussion Forum*, and its host site at <http://www.ianblenkham.com> have been approved by the Health On the Net Foundation, and comply fully with the 8 principles of the HON Code of Conduct that provide an indicator of quality:



Health On the Net Foundation is the leading organization promoting and guiding the deployment of useful and reliable online medical and health information, and its appropriate and efficient use. Created in 1995, HON is a non-profit, non-governmental organization, accredited to the Economic and Social Council of the United Nations.

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Any medical or health advice provided and hosted on this site will only be given by medically trained and qualified professionals unless a clear statement is made that a piece of advice offered is from a non-medically qualified individual or organisation

Complementarity

The information provided on this site is designed to support, not replace, the relationship that exists between a patient/site visitor and his/her existing physician

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Confidentiality of data relating to individual patients and visitors to a medical/health web site, including their identity, is respected by this Web site. The web site owners undertake to honour or exceed the legal requirements of medical/health information privacy that apply in the country and state where the web site and mirror sites are located

Attribution

Where appropriate, information contained on this site will be supported by clear references to source data and, where possible, have specific HTML links to that data. The date when a clinical page was last modified will be clearly displayed

Justifiability

Any claims relating to the benefits/performance of a specific treatment, commercial product or service will be supported by appropriate, balanced evidence in the manner outlined above in Principle 4

Transparency of authorship

The designers of this Web site will seek to provide information in the clearest possible manner and provide contact addresses for visitors that seek further information or support. The Webmaster will display his/her E-mail address clearly throughout the Web site

Transparency of sponsorship

Support for this web site will be clearly identified, including the identities of commercial and non-commercial organisations that have contributed funding, services or material for the site

Honesty in advertising & editorial policy

If advertising is a source of funding it will be clearly stated. A brief description of the advertising policy adopted by the web site owners will be displayed on the site. Advertising and other promotional material will be presented to viewers in a manner and context that facilitates differentiation between it and the original material created by the institution operating the site

Get out of that!

OK, I know this does not relate to Clinical Wastes, but to the current excitement about Council wardens hitting people with punitive on-the-spot fines for littering. I think it will be of interest, and certainly topical.

I am not fond of litter, or for that matter of the people who create it. However, I note a [Magistrate colleague](#) raises the following question:

"If one of the new breed of litter wardens decides that you have improperly dropped something, and he decides to give you a penalty charge ticket, and you refuse to speak to him and walk briskly away, what can he do about it? Since people, unlike cars, do not carry number plates (at least not for the moment, but nothing would surprise me) how can he establish who you are, to take matters further? I doubt that he has the power to detain you - or has he? Anyone know for sure?"

Perhaps someone visiting the *Clinical Waste Discussion Forum* knows the answer?

Research programme – we need your help



Infections, accidents and near-misses with clinical wastes

Clinical wastes present several clearly defined risks. They may transmit infection, ranging from the troublesome but relatively minor infection of a traumatic wound, cut or graze, or infections of the gut and respiratory tract (chest infection), to more serious and possibly life-threatening infections caused by a range of viruses. Other hazards include allergic reactions, and exposure to toxic or corrosive chemicals including disinfectant and pharmaceutical residues. There are risks of physical injury (cuts, scrapes, sharps injury), as well as slips, trips and falls, vehicle- and equipment-related accidents, and manual handling injuries.



Accidents happen – tell us what happened, and help promote best practice

Many reports, guideline, and Codes of Practice have each considered the risks, and ways in which they may be reduced or eliminated. Although "needlestick" or "sharps" injuries have been studied in great detail, mainly among healthcare workers, due to the complexities of study there has been no single authoritative study that defines overall the incidence (frequency) and types of problems that occur when handling clinical wastes.

Questionnaires are invaluable in gaining detailed information that can indicate current practice, and identify problems and their remedies. We hope that the information obtained from this questionnaire will go some way to identifying the range of hazards involved, their severity, and methods or procedures by which these hazards can be reduced or eliminated. Significant findings will be published in an appropriate scientific journal, with care to ensure sources of data remain completely anonymous. Your help in completing a relevant questionnaire will be greatly appreciated.

All data will be treated in STRICT CONFIDENCE

Identities will NEVER be divulged

Research data are being reviewed in association with anonymised reports from RIDDOR, and thanks are due to Health & Safety Executive for their assistance in this study. So far, the data suggest an incidence of needlestick injuries associated with the removal of bagged clinical wastes higher than has previously been reported. Interestingly however, reported needlestick injuries among commercial waste management company

employees are remarkably low. Of course, that is just not believable and indeed contradicts my own observations in that area. In identifying these data, the study highlights additional issues, such as the clarity of RIDDOR guidelines that do not encourage reporting of all needlestick injuries, together with a reticence among employers who fear RIDDOR reports will precipitate unwelcome HSE investigations, and spoil an otherwise acceptable safety record!

Please take a look at the questionnaire, accessible at <http://www.ianblenkarn.com> – select *Questionnaire* from the menu. Add your own data, from personal experience, accident book records etc. Please encourage your Safety Supervisor or Manager, and encourage colleagues to make an entry.

The more data that is obtained the better will be the conclusions drawn, that are intended solely to promote best practice.

Hand hygiene for those handling clinical wastes

Another important study launched on the **Clinical Waste Discussion Forum** addresses hand hygiene for workers handling clinical wastes. The correct use of gloves, of the appropriate type, is a key step in safe working practice. But when gloves are removed, hands really should be washed. What happens in the workplace - is a wash hand basin close to hand, properly serviced and properly maintained? And how often is it used?

This is even more important for staff collecting wastes from their point of arising, whether porters collecting wastes from hospital wards, handling/transferring wastes at an outdoor storage bay, or the commercial contractor visiting numerous locations to collect clinical wastes from hospitals, GPs and clinical etc. How often are gloves used? Hand washing facilities may not be available or accessible, except for those using trucks having integral hygiene facilities. But if they do not, what, if any, alternative strategies are used?

Please make comment in the **Clinical Waste Discussion Forum**; let us know what your policy is. Or you may prefer to email me directly at blenkarn@ianblenkarn.com.



Why do hospitals not go green?



There is now some very impressive equipment available that can separate mixed domestic-type refuse to recover paper, many different types of plastics, ferrous and non-ferrous metals, glass, batteries etc. But this is not widely used throughout the UK. So were on a plethora of colour-coded waste bins that seem to be taking over the county's gardens.

Managed sometimes with draconian zeal, Local Authorities now require separation at source of food remnants, glass, plastics, paper, metals, batteries and many other wastes. Actually, it's a good idea. It's necessary; it just has to be done. But what about waste from hospitals?

A number of key waste streams exist in hospitals. Some, such as clinical wastes, have an increasing range of sometimes petty sub-divisions. But the bottom line is domestic-type refuse. This is by far the largest waste stream, and it's a pretty mixed bag. No segregation - cardboard, paper, glass, compostable items, cans, jars, batteries - it is all there. The NHS produces huge volumes of domestic-type refuse - about 1% of the total volume for England and Wales, though less than 2% of this is presently recycled. There have been several attempts to "green" the NHS. Mostly, these initiatives are undertaken to make our politicians and campaigners feel good, but generally fizzle out over time. And what have they achieved? Apart from some invaluable efforts in the areas of product design, packaging and distribution (green procurement), as far as I can tell the remainder merely succeed in shifting waste from one stream to another, make only a trivial and largely unsustainable contribution to waste reduction, and do nothing to facilitate recovery and recycling.

I do not advocate additional segregation at source. There is no space in most hospitals for yet more coded waste containers, and I have long argued that providing additional choices in disposal promotes error in segregation - and we all agree that some of this stuff is dangerous. But what happens further downstream? Probably nothing. Where is the investment to provide the necessary waste separation/recycling technologies? The technology exists, and we must invest. Until then, our hospitals remain anything but green. It seems that the waste police do nothing. But go home, put an apple core in the wrong bin, and you better watch out.....

Are there any hospitals that have successfully introduced a green policy? How does this work? What do you do? What are your results?

Please share your experiences, and your success stories.

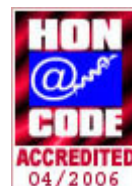
Contaminated sharps bins

Not many studies examined the organisms present in sharps bins. It really doesn't matter: we treat sharps bins and their contents as a potent infection risk presenting a risk for bloodborne virus transmission.

An abstract in *Am J Infect Control* 2006; 34: E83-E84 reports a study of newly processed reusable sharps bins from a 130-bed New England hospital. 27 (90%) bins were positive for bacteria with 10% of isolates considered potentially clinically harmful. 9 of 30 bins (30%) were

The boring bit!

1. The **Clinical Waste Discussion Forum** is presented "as is". It is intended as an open information exchange, to facilitate the exchange of news, views and opinions. Feel free to post questions, or to offer answers to the questions posted by others. Your opinion and experience will be valuable to others, and we hope that this Forum will provide an easily accessible means to share knowledge, to develop or maintain best practice, and to seek advice from others.
2. We welcome the involvement of all those interested or involved in the handling of clinical wastes and related healthcare wastes, from bedside to end-disposal.
3. Please select an appropriate THEME for your message.
4. Do not duplicate messages unnecessarily.
5. Posted messages are reviewed daily, but will appear live as soon as you press the POST button.
6. Anonymous posts are permitted, but we would prefer that you included your name, email address and affiliation when posting messages or replies to messages.
7. To remove any message, please email the [Moderator](#).
8. We place no restriction on users, who are entirely free to post relevant messages and responses to messages.
9. The Forum is not a free advertising service. Though we welcome and support posts from any commercial organisation, blatantly commercial use of this Forum will not be permitted. Any such posts may be subject to editorial change or to rejection. The originators of such posts will be notified of such decisions by email.
10. [Ian Blenkarn](#) publishes this **Clinical Waste Discussion Forum**, in association with [Cliniserve Limited](#). We take all reasonable measures to ensure that the information posted in the Forum is accurate. Nevertheless, we give no representation or warranty, whether express or implied, regarding the Forum or its contents, including, without limitation, any warranty of accuracy or completeness of the information posted on the Forum or its contents. Any decision made by a visitor to this Forum based on information presented therein is the sole responsibility of that visitor. Ian Blenkarn and Cliniserve Limited or any of its directors, employees or agents accepts any liability for loss or damage including, without limitation, any special, direct, indirect or consequential loss or damage or other losses or damage of whatsoever nature arising out of or relating to the use of this Forum or its contents.
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12. Editorial decisions are final and absolute.
13. The Forum may be suspended or withdrawn without notice at the sole discretion of the owner.



Some recent publications



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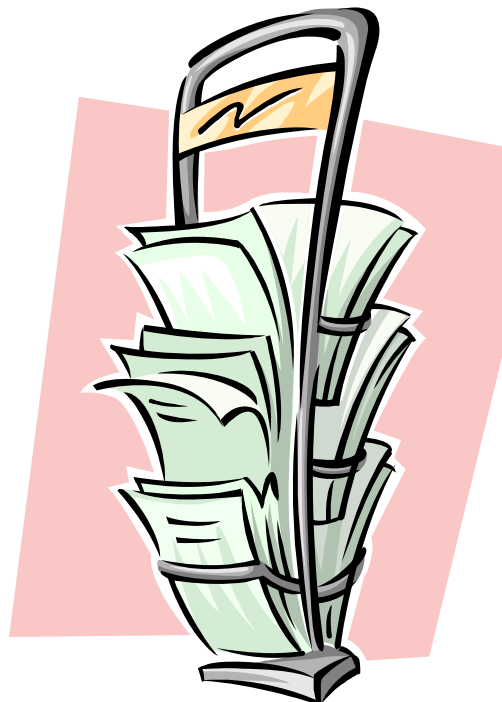
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We will continue to list relevant publications with each issue, but do not pretend to provide a fully comprehensive list. If you are aware of any interesting or informative publications, including Company guides and other publications available for download, that will be of interest to the Clinical Waste community, please put a message on the ***Clinical Waste Discussion Forum***.

Ooops!

A report on 17 May in Felix, the Imperial College online student newspaper "[Hazardous waste abandoned at Imperial hospital](#)" reports the concerns of medical students exposed to inadequately managed clinical wastes at Charing Cross Hospital. The report states:

"Medical students at Charing Cross Hospital were put in direct contact with an unattended skip of clinical waste as they attempted to enter the hospital's laboratory block on Friday, 12 May. Overflowing bags, which can contain anything from human tissue to drugs and dressings, were obstructing the exit from a lift, which is accessible to patients, students and visitors at the hospital. One student walked into an overflowing clinical waste bag as she left a public-access lift on route to her tutorial. She had to move the yellow 'biohazard' containers in order to get past the obstruction.

The distressed fourth year student told Felix: "This is utterly unacceptable. It looked as if someone had left early for the weekend and dumped a skip of potentially hazardous waste in front of a lift for some poor soul to walk right into. The bags were unstable and if one had split open, I dread to think what might have happened." There are usually stringent controls in place to ensure that clinical waste is managed safely and is disposed of without harming the environment or human health. Contravention of waste controls is a criminal offence. Section 34 of the Environment Protection Act 1990 places people concerned with clinical waste under a duty of care to ensure that the waste is disposed of safely and is only transferred to someone who is authorised to handle it.

Students noticed that the waste had been left untouched for two hours and contacted Felix to voice their concerns. We spoke to the hospital switchboard to report the incident and were put through to the Duty Porter's office, who confusingly said, "put it in the bin"..... "

Well, its not very pleasant. In fact, it is inexcusable and totally unacceptable. No doubt investigation will find someone to blame, but not much will change. Situations of this kind can be seen in many hospitals (see "[Standards of clinical waste management in UK hospitals](#)" at <http://www.ianblenkarn.com>, select [publications](#) from the menu). Although there has been at least one HSE prosecution under Section 3, Subsection 1 of the Health & Safety at Work Act, 1974, for similarly poor management of hazardous wastes, little is done to address these deficiencies, which can be seen daily in most NHS hospitals. But at least this cohort of future doctors have had a new experience, have thought through the issues, and considered the risks involved. Hopefully, they will remember those lessons throughout their future careers.