



Aseptic Non Touch Technique

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ANTT has received no remuneration for this evaluation.

MedMat video analysis – draft1

Overview

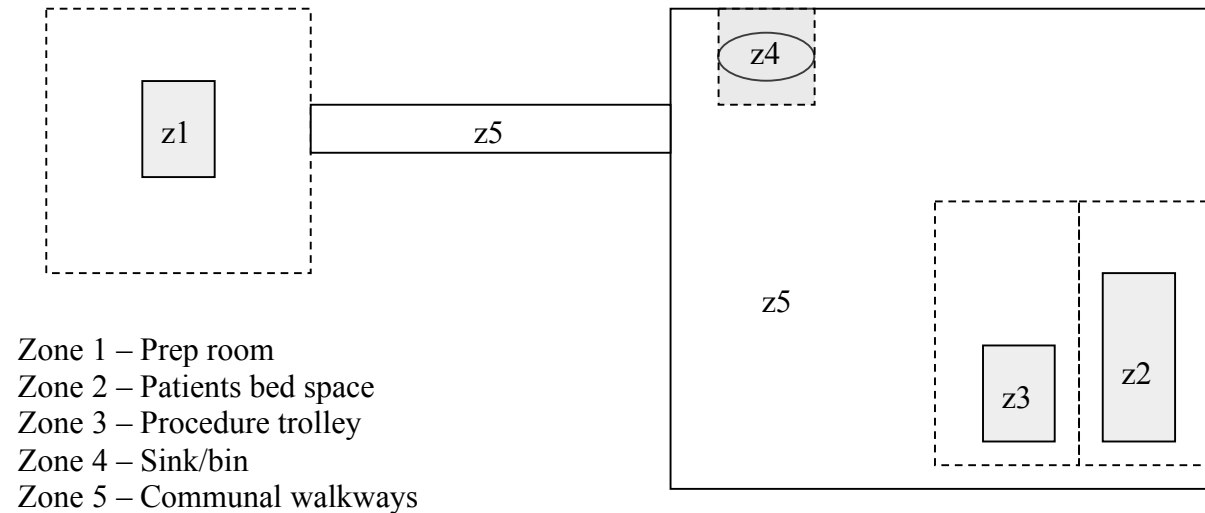
The MedMat provides a combined multi layered aseptic field, waterproofing and waste bin. The manufacturer of MedMat maintain this product provides greater infection control qualities than the conventional sterilised drape and waste bag which is typically supplied within a standard NHS style dressing pack.

Method

A large and small wound care dressing was filmed in high definition video from perspectives simultaneously to provide 360 degree coverage. The large leg dressing involved a ‘patient’ lying in an NHS bed. For the small dressing the patient was sitting in a chair with their arm positioned on a wound care trolley.

Both dressings were reviewed in slow, normal and fast motion on PC. The movement of the clinical waste and the operator were tracked between pre defined environmental zones. (The concept of environmental zones is similar to the WHO’s ‘5-moments’ concept; that as well as direct contact/transference, the transfer of organisms between different hospital environments (zones) is significant in preventing health care acquired infection. To this end, this evaluation is focused on the potential for transfer of organisms into or out of the patients zone (bed space) during a typical wound care procedure in a hospital setting.

Environmental Zones in this evaluation procedure



The main criteria for our assessment of this product

- Minimize travel of waste between zones.
- Minimize procedure time.
- Minimize operator travel between zones during procedure.
- Minimize hand cleaning frequency.
- Maximum protection between the procedure and the patients zone. (Namely the patients bed).
- Exposure time of wound.

Typical equipment for wound dressings

Most NHS hospitals stock wound care packs. These are typically supplied and stocked in one size only with the main sterilised drape measuring approximately 50 x 50 cms. Typically, these packs contain a clinical waste bag approximately 15 x 30 cms or smaller.

A comparison of wound care dressings: MedMat + wound pack v sterilised drape / wound pack

Issue	Conventional	MedMat	Comments
Procedure 2 – Small arm dressing.			
Waste travel (Potential for environmental contamination)	Waste travels between Zone 2 and Zone 3 from the open wound to the clinical waste bag on the trolley. Or, in the event of no waste bag on the trolley, or not wanting to fill it with waste at this point, waste travels un bagged from Zone 2 to Zone 4 across Zone 5 i.e. from the open wound, across the room to the clinical sink.	Waste is maintained within zone 2 at all times until the procedure is complete and the waste bag is sealed.	Anecdotally, when waste bags are not available or are too small, HCP's will transfer waste across zones without consideration to zone contamination.
	The sterilized drape was observed free hanging when transferred from the wound site to the clinical waste bag. (Picture 1) . This is likely to transfer wound organisms from to the	At the same stage as left, the drape (1 st layer of MedMat) is folded into the integral bin pocket.	MedMad promotes good practice. Probably working on the principle that if you provide a logical solution that provides the quickest route, HCP's will use it.

	surrounding floor and bed.		
Operator travel (Potential for environmental contamination).	The clinical waste bag was too small for the large dressings that were removed. This encourages transfer of waste intra procedure between zones.	Because the MedMat selected was chosen relative to the dressing size, the waste pocket was large enough for the large dressings mid procedure.	The Relative size of mat/incorporated bin equates to less likely to require walk across large zones to bin.
Size of aseptic field (The protective barrier between the open wound and the patients bed zone).	The sterile drape did not provide adequate coverage/protection to protect the bed space.	MedMat completely covered the exposed wound and working area.	Protecting the patients zone/bed space from open wound organisms is a high priority. Failure is likely to lead to transference of organisms across all zones over time.
Exposure time of wound		Keeping pad out of the dressing pack enables the pack to be opened after dressing removal. This equates to less environmental exposure to the aseptic equipment/field.	This would be more significant in some working environments than others. i.e. an operating theatre at one end of the scale to a combat zone at the other.
Waterproofing (Reduces risk of wound organisms seeping into the bed, mattress, environment via a cleaning/irrigation solution).	The operator removed the waste bag after dressing removal. This left no waterproofing protection for irrigation.		Most standard packs provide one sterile drape. This is often not enough. Either an extra drape or an extra waterproof pad is required. MedMat covers more scenarios.
Zone 2 contamination.	More contamination of trolley due to		

	more activity over trolley. Increased risk of patient to patient transfer.		
Hand cleaning frequency			No obvious difference noted.
Procedure time			MedMat appears to provide a marginally quicker solution due to less operator and clinical waste travel as well as reducing the chance of intra-procedure interruptions due to poor equipment selection.
Procedure 2 – Small arm dressing.	MedMat provided less advantage in this scenario due to the fact Zone 1 and 2 were merged and less equipment, smaller size equipment, were required.		

Picture 1



Conclusion

MedMat appears to provide some infection control advantage over the standard sterilized drape and clinical waste bag. The significance of these observed advantages require further enquiry. MedMat seems likely to reduce the travel of clinical waste across environmental zones. It is also likely to reduce operator travel intra-procedure. Often, such travel is down to poor assessment of the procedure or inadequate amount or sized equipment. MedMat reduces the potential for intra procedure interruptions and the need to leave treatment zones 2 & 3 by providing a combined aseptic field with multiple layers and good sized waste pocket. The natural matching of the wound size to the MedMat size selection also appears likely to reduce operator and clinical waste travel. The inherent waterproofing and size of the aseptic field in MedMat compared to the typically small and paper thin sterilized drapes provided in standard wound packs, provides significant better protection of the patients zone/bed space from open wound organisms during wound care procedure. In summary, it seems probable that MedMat would help reduce the contamination of the hospital environment from open wound organisms during wound care procedures.