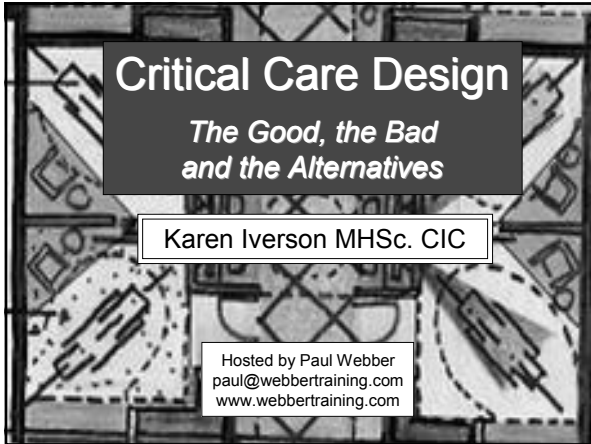


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Overview

- A new dialysis unit- lessons learned
- Challenges of negative pressure isolation rooms
- ICU design considerations, what's your priority?
 - Space for sinks/hoppers/macerators
 - What do you do for dialysis?

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Personal Encounters Hemodialysis

- 4 Chair pods
- 1 sink per 4 chairs
 - Type and size of sink matters
- Plumbing code and drains...
 - New drain design
 - OBC and ventilation
- The outcome...
 - *Enterococcus casseliflavus*

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The OBC

7.4.2.1 Ontario Building Code 1997

(1) Every fixture shall be directly connected to a sanitary drainage system, except that...

- (d) the following devices shall be indirectly connected to a drainage system
- (i) a device for the display, storage, preparation or processing of food or drink
- (ii) a sterilizer
- (iii) a device that uses water as a cooling or heating medium
- (iii) a water operated device
- (iv) a water treatment device
- (vi) a drain or overflow from a water system or a heating system or
- (vii) a drain line from a HVAC system or equipment

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HEMO Drains

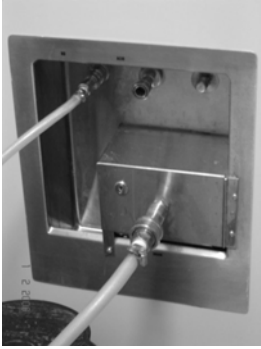


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The solution

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Personal Encounters ICU Design

- TWH ICU, last renovated in 1984
 - 23 beds
 - 3 singles, 4 ~~4~~ ward rooms
- Compared new TGH ICU to TWH ICU
 - 0.5 bed moves compared to 4.53
- Inappropriate use of hand washing sinks
- Lack of monitoring for negative pressure
- Mechanical systems inadequate
- Looked at staff and patient infection rates

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TGH ICU design

- New construction—36 beds
 - 6 negative pressure
 - 28 single rooms
 - 1 double room
- Natural light
- Staff able to observe patients from outside the room
- Up to date monitoring of ventilation system

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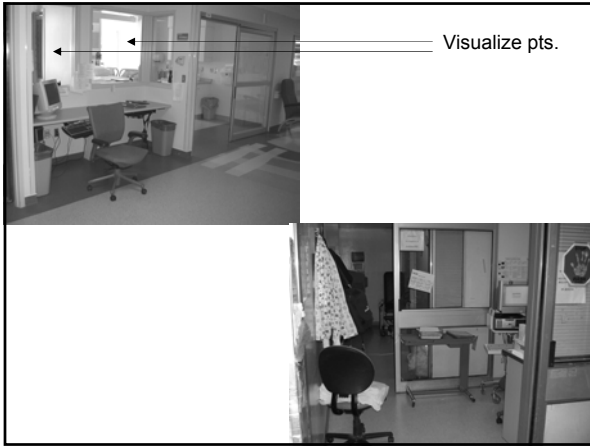




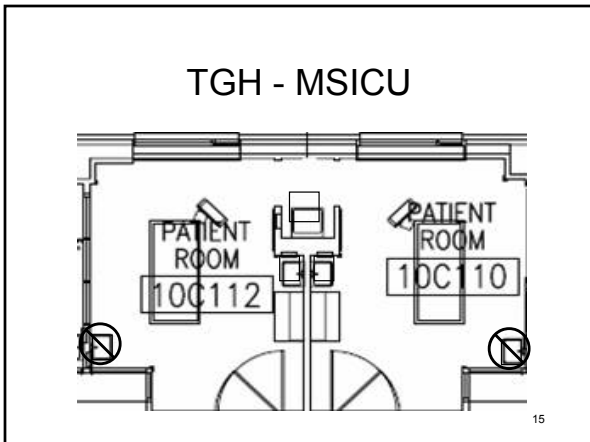


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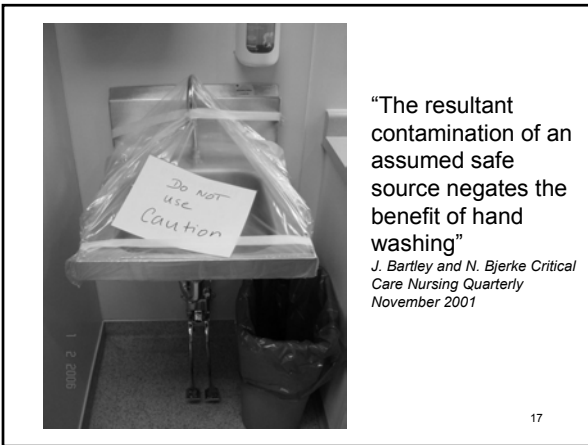




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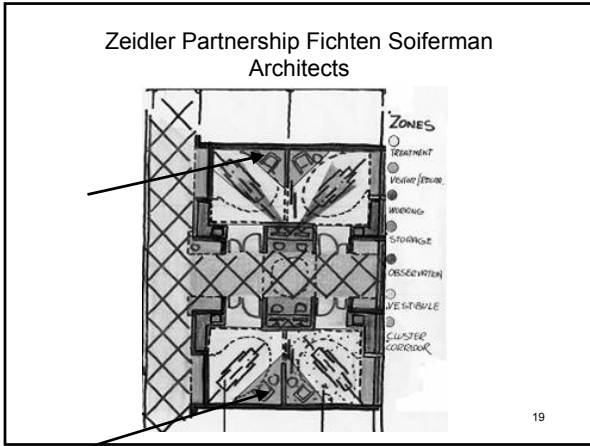






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Antimicrobial Fabric?

- Seating areas for family and visitors
- Important for patient care and recovery
- How does the product really perform?
- Water resistance is important – try to meet them half way.

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Sinks/hoppers/macerators

- Type of fixtures recommended in areas
 - Cost versus benefit
 - Blackout...
- Location and mounting of sinks
- Location for waste disposal
 - Ratio of waste receptacle to beds



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Waste Disposal

AIA 7.3 A15d

“Soiled workroom or soiled holding room....The soiled workroom shall contain a clinical sink(or equivalent flushing –rim fixture)...If the flushing –rim clinical sink is eliminated, facilities for cleaning bedpans shall be provided elsewhere.”

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Questions

- Can/should wastes be carried through other areas
 - Central or local?
- Commodes and built in units
- Disinfectant or disposable?
- Are isolation rooms that different
 - Shared vs. private units

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What we've learned

- Sinks closer to doors
- Articulating arms
- Sliding doors?
- Method of waste disposal
- Isolation cluster and HVAC design
- Multi-function rooms
- Plan for HVAC in decanting plans for new space

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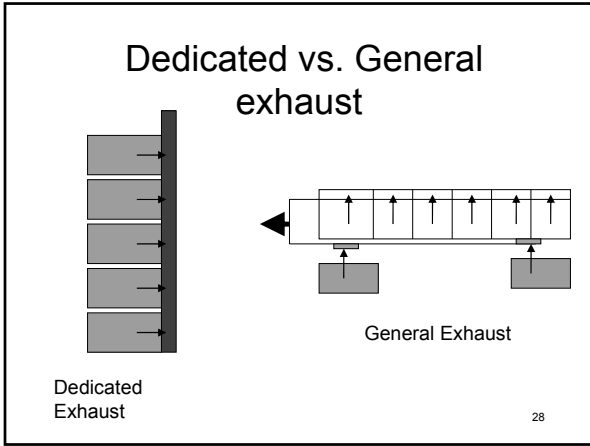
Negative pressure rooms/mechanical

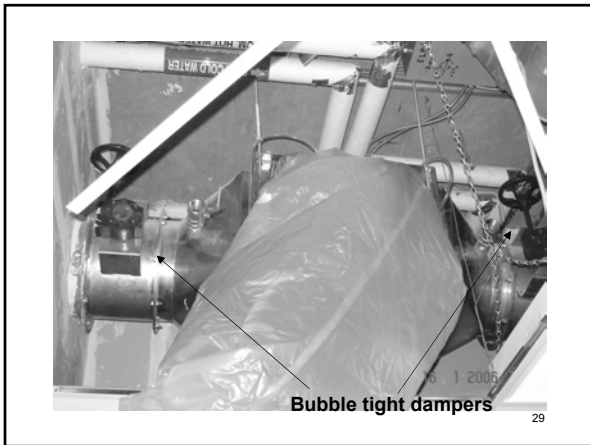
- Design problems
 - Difficulty maintaining pressure
 - Sealed rooms
 - Use of ante rooms
- Location
- General exhaust
- HEPA exhaust
- Maintenance of rooms
- Monitoring of rooms/audio/visual

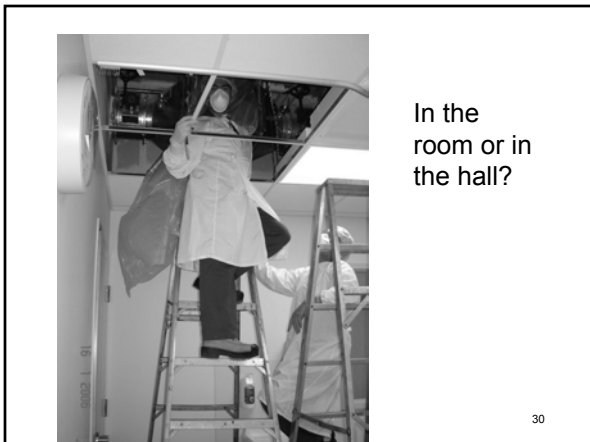
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Other Major Issues

- Redeveloping space
 - Use existing walls/bed layout to save \$
 - “Grandfathered” design, lack sinks, poor bed spacing
 - Cost to upgrade HVAC...not done (high standards)
 - **Where to build!**
- Adding ducted neg. pressure room too costly
 - Options for HEPA units?
- Need to know when it can be “redeveloped” and when it needs to be REDONE

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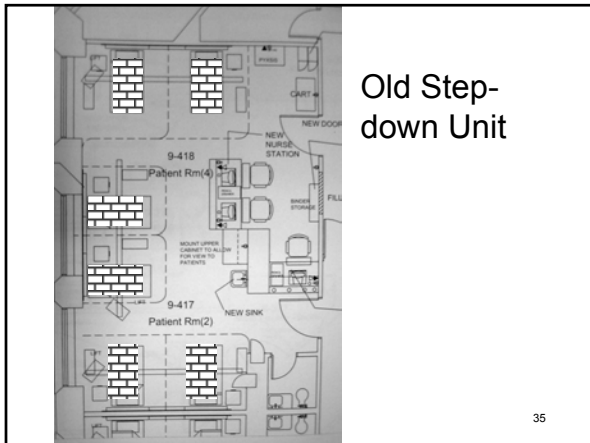
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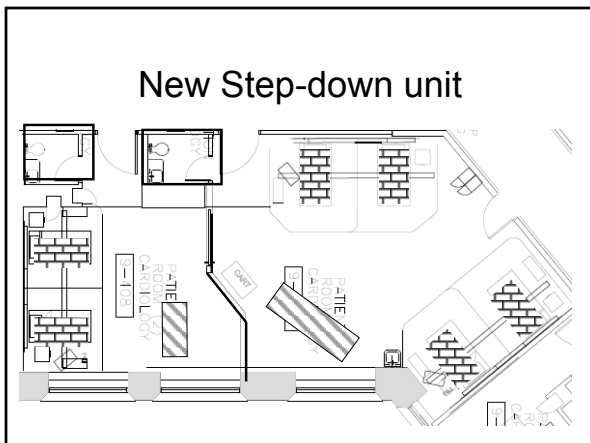
Patient Spacing issues

- Need to group patients according to nursing ratios
 - “Single rooms are nice but we can’t afford it”
- Lack of clarity surrounding “step down” type care
 - How to group patients
- Departmental moves and changes to functional focus
 - How specialized should a space be as the odds are, it will be used for something else...

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Next steps

- Canadian standards?
- Investigate what works for you
- What do clinical staff think?
- Design what will work or what you want to work?

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April 2006 Teleclasses

- | | |
|----------|---|
| April 13 | <i>Vaccination and Immunization</i>
... with Dr. Ian Gemmill |
| April 20 | <i>Secrets from the CBIC Test Committee</i>
... A free teleclass |
| April 27 | <i>Evaluation and Comparison of Quality Management Systems - ISO, Six Sigma, Baldrige, Toyota Production Model</i>
... with Dr. Tammy-Sue Lundstrom |

For the full teleclass schedule – www.webbertraining.com
