INTRODUCTION TO
WASTE & RECYCLING IN THE OR

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WHY IS RECYCLING IMPORTANT?
U.S. Hospital Waste

• U.S. hospitals produce more than 7,000 tons of waste per day (= 14 million pounds)
• Cost of waste disposal accounts for ~20% of a hospital’s environmental budget
• 20-30% of all hospital waste comes from the operating rooms

UWHC’s Waste

- Average landfill waste per month in 2014 = 373,200 lbs (= 186 tons)
- Average monthly cost in 2014 = $12,206

- Per Year
  = 4.5 million lbs (2,240 tons) of waste
  = $150,000 disposal cost
What Happens to Landfill Waste?

FROM GARBAGE TO DIRT: The Decomposing Time line

Can We Do Better?

• OR in North Carolina saved $158,000 per year by initiating a multidisciplinary recycling effort
  – 12,000 lbs waste diverted
  – 75% reduction in red bag waste
  – 500 lbs alkaline batteries recycled
  – 2.7 million liters water saved
  – 234 tons CO2 emissions eliminated

OPERATING ROOM WASTE STREAM
Locating the Trash Bins
Black Bins

- Used to dispose of pharmaceutical waste
  - Medication vials/syringes
  - Mini-IVF bags with meds
Red Bins

- Used to dispose of sharps and infectious waste
  - Needles, syringes, breakable glass
  - Bloody vials/syringes
Sterilmed (Green) Bins

- Used to dispose of recyclable medical devices
Red Trash

- Used to dispose of biohazardous, grossly contaminated items
  - Splashing, spilling, organ material
Green Trash

- Used to dispose of recyclable material
  - Non-soft plastics
  - Regular and waxy paper
Black Trash

• Used to dispose of all other items
RECYCLING IN THE OR
Locating the Recycling Bin

- At UW: in anesthesia work area
- At AFCH: behind anesthesia cart
What Can You Recycle?

- Non-soft plastics
- Regular and waxy paper
- Items larger than a standard 3x3 post-it note
- Pull apart paper from plastic and discard BOTH
- Don’t know if the item is recyclable?
  - Discard in the regular black trash
  - UW gets fined for incorrect recycling
  - Recycling centers will stop taking our recycling if too many errors
Recyclable & Non-Recyclable Items
Recyclable & Non-Recyclable Items
Recyclable & Non-Recyclable Items

Images show examples of recyclable and non-recyclable items. The green checkmark indicates recyclable items, while the red X indicates non-recyclable items.
Recyclable & Non-Recyclable Items
Recyclable & Non-Recyclable Items
Recyclable & Non-Recyclable Items

1. [Image of recyclable items]
2. [Image of non-recyclable items]
3. [Image of recyclable items]
4. [Image of non-recyclable items]
What goes in the green recycling bins?

NG tube and Bair Hugger wrappers

Trash (gloves, etc.) goes in black bins

Recycling (must be clean, paper pulled apart from plastic)

More info and items list at:
Uconnect → Environmental Services → Resources → UW Health Recycling Information

Paper AND plastic wrappers
e.g. for laryngoscopes
If pulled apart can BOTH go in the recycling

Sterile trays

Cardboard and non-confidential paper

Any wrapper bigger than a post-it
Paper and plastic both if pulled apart

IV tubing + fluid wrappers

Sterile glove wrappers (NOT the gloves)

Items must be clean, NOT infectious or bloody.
If you’re not sure, put it in the regular trash.

If your patient is crashing, chuck it anywhere and deal with it later. If you have time and more questions, send pictures/questions via email to: zuegge@wisc.edu

Even the waxy paper is recyclable
What is NOT recyclable?

- Syringes and syringe wrappers (even if clean)
- Soft plastic bags and wrappers, e.g. from O₂ tubing or oral airways
- Any item smaller than a post-it

If you’re not sure if it’s recyclable, put it in the regular trash.

If you’re not sure if it’s recyclable, put it in the regular trash.

Or if your patient is crashing, chuck it anywhere and deal with it later.

If you have time and more questions, send pictures/questions via email to: zuegge@wisc.edu

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OTHER ITEMS THAT ARE NOT RECYCLABLE:

- IV tubing, IV fluid bags
- Dirty, bloody or infectious items
- Gloves
- Items from an ISOLATION room/case
- Confidential paper (with patient IDs on it)
- Blood product bags
- Medication vials/containers/bags
When Should You Recycle?

• All the time!

• But patient care and safety always come first!
  – Don’t worry about recycling if it interferes with the safety of the patient
ANESTHETIC GAS WASTE
Hospital Gas Waste

- Exhaled gases are scavenged by the anesthesia machine scavenging system and OR ventilation system
- Waste gases are pumped out the top of the building into the atmosphere
Environmental Impact of VAs

- CO2 has Global Warming Potential (GWP) = 1
- Isoflurane = 1230 comparative GWP
- Sevoflurane = 1980 comparative GWP
- Desflurane = 3714 comparative GWP
- Nitrous Oxide = 300 comparative GWP
  - But atmospheric half-life = 114 years
How to Reduce CO2 Emissions

• Limit (or eliminate) use of Desflurane
• Turn down gas flows ASAP
• Use the “Pause Gas Flow” feature
• Use low flows:
  – Sevoflurane: can run <1 LPM if ≤1 hr
    can run <2 LPM if ≤2 hrs
    need to use ≥2 LPM if >2 hrs
  – Desflurane: can run as low at 0.5 LPM
  – Isoflurane: can run as low as 0.5 LPM
“Pause Gas Flows”
HOW YOU CAN
MAKE A DIFFERENCE
Reduce, Reuse, Recycle!

- Avoidance and Minimisation
- Reuse
- Recycling
- Recovery
- Disposal

Maximum Conservation of Resources
Attend Green Team Meetings

Nothing Says Love Like Recycling On Valentine's Day

WHEN: February 12th @ 5PM Blue Moon Tavern

GREEN TEAM MEETING

Spring into Recycling at the Blue Moon Tavern

WHEN: May 6th @ 4PM Blue Moon Tavern

GREEN TEAM MEETING
Recycle in Your Daily Life

UW Health Mixed Recycling (green bins)
REDUCE REUSE RECYCLE

Including, but not limited to:

PLASTIC
(Clean / Rinse)
Plastic bottles (with cap on)
Plastic containers #1-7
Plastic bags (bundled, as large as a basketball)
Plastic utensils

METAL & GLASS
(Clean / Rinse)
Aerosol cans (empty)
Aluminum cans / pie plates
Glass bottles & jars
Tin & steel cans

PAPER
Copy paper & wrapping
Cardboard, cereal/cracker boxes (no food residue)
Magazines, junk mail, newspaper, envelopes
Grocery bags
Paper milk/juice cartons, coffee cups/sleeves (rinsed)
QUESTIONS?