

Regulated Medical Waste



Best Practices in Medical Waste Management.



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Your Medical Waste ...



- Do you see
 - Trash mixed with the red bags
 - RMW mixed with the trash
 - Unsafe sharps disposal
- Does Red Bag Waste cost you too much?
- Is it difficult to train/control those who actually produce the waste?
 - Nurses, Doctors, Techs, etc?
- Are you worried about regulatory non-compliance?
 - Fines
 - Negative publicity
 - Personal liability

Your Costs?



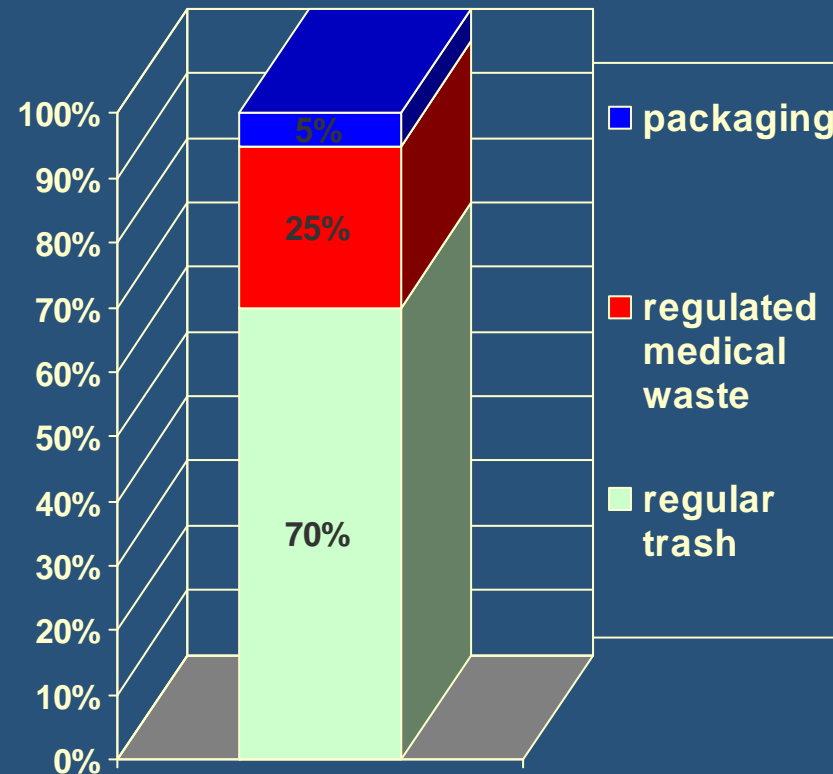
- **Average hospital produces 2 to 4 times more medical waste than needed**
- **medical waste is**
 - **5% to 15% of the waste stream, but**
 - **60% to 85% of costs.**
- **Medical waste costs 10 times more than land filling that same non-contaminated waste.**

Your Costs?



Typical composition of Medical Waste

- Based upon 340 detailed waste audits ...
 - On average, 70% of medical waste is actually misdirected, regular trash.
- WHY?
 - inadequate training
 - lack of accountability
 - Improper bins, layout, signage, etc.





Regulatory Risks?

- DOT requires
 - Training, Labeling, storage, Monitor compliance,
 - Fines of \$5,000 to \$60,000 for paperwork violations
- EPA requires
 - segregation, detailed records, training
 - Fines range from \$2,000 to \$120, 000
- DOE/ DOH require
 - segregation, detailed records, training
 - Fines range from one State to another

Mandatory Compliance?



- AHA-EPA MOU
 - Reduce RMW by 35% before 2005, and by 50% by 2010
- JCAHO
 - Environment of Care - Process Improvement Plan (P.I.P.)

What is the answer?



A Commitment

- Assign and hold accountable
- Constant monitoring
- On-going Environmental Program development
- Budget and Personnel

A System

- Evaluating and meeting needs
- In-service training
- Record keeping and reporting

What tools are needed?



Documents

- Audit Document and Waste Management Plan
- Quarterly Reports
- Annual Report

Reporting Commitment (Meetings)

- Daily/weekly monitoring and reporting
- Scheduled Quarterly/Annual progress reports
- Firm commitment from upper management

Training Program

- Detailed definitions; customized for each department
 - But not too much
- In-service program; ongoing

Procedures

- Identify and correct problems
 - Bins
 - Labeling
 - Signage

Audit Document



Perform a walkthrough audit of your facility

- All locations
- Take digital photos of the waste
 - Contamination
 - Unsafe practices
 - Things that don't work
- this may point to your own systems and people



Audit - Costs

- How much does your program cost?
 - Total Lbs.
 - Cost per lb.
 - Pickup and other charges
 - Sharps program cost
 - Purchasing
 - Bags and ties
 - Extra Sharps containers
 - Allocate costs to individual departments
 - Count red bags and distribute evenly



Audit - Definition

- What do the Regulations require
 - Definition only
 - State
 - County
 - National
 - Other
- What do YOU want to see in your red bag waste?
 - Infection Control
 - Nursing
 - Labs
 - O.R.s



Audit - Regulations

- What do YOU want to see in your red bag waste?
 - Isolation Waste
 - “Pink Waste”
 - Bulk Blood
 - Chemo
 - Syringe without a needle
 - Other Grey areas?

Audit - Bins



- Bin requirements and layout
 - Work flow
 - Special wastes and requirements
 - Chemo
 - Large Sharps, staplers, etc.
 - Fluids
 - Plan to purchase some new trash bins; at least 1 for each red can removed

Audit - Support Materials



- Post-it notes (budget?)
- Laminated posters
- Plastic labels

Procedures



- How will you deal with problems?
 - Wrong bins
 - Inadequate pickups
 - Lack of compliance
 - What do you do about it?
 - Involve whom?
- Create procedures!

Training Program



- Itemize the objectives of a training Program
 - Goals
 - Man days required
 - From 20 – 60 days for rollout
 - 12 – 24 days annually
 - Who will carry out training
 - Do they have the time required to succeed?
 - Schedule and coordinate
 - Hit all shifts and departments

In Service Training



develop curriculum with involved parties

1. Infection Control – important
 - Base on regulations
2. Nurse Managers
 - CNO, Nursing Directors
3. O.R. and Labs
4. Don't let EVS get dragged into the definition of waste



In Service Training



- **Conduct all in-service training**
 - Nurses,
 - Doctors, House Staff,
 - Lab Techs, OR Techs
 - Housekeeping personnel and others
- **provide the bulk of training during rollout phase**
- **20 to 60 Days!**
- **coordinate training with Nursing education to capture inbound personnel**

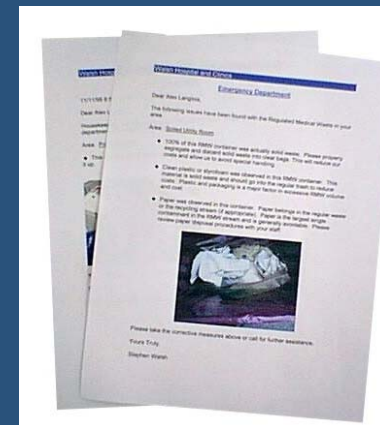
Monthly



- **Effective training is not an event, it is a process!**
 - Ongoing training of all departments
 - Coordinate and support Nursing education and orientation
 - Department follow-up and problem resolution
- Budget 1 to 3 days per month of tracking and training

Daily Monitoring

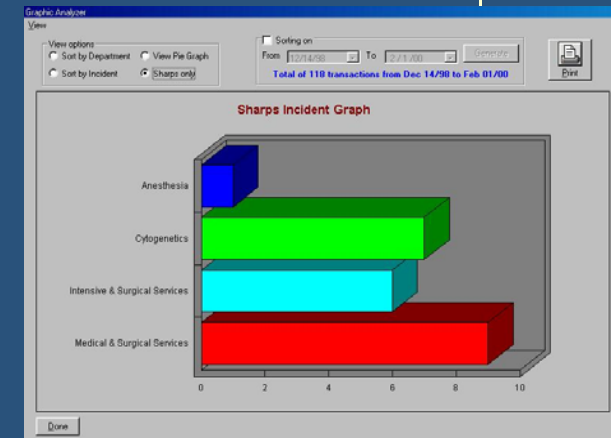
- **Tour your facility**
 - **Make it a habit to examine waste bins**
- Report infractions immediately
- Use email and excel models
- Use PDAs and cameras
 - “A picture is worth a thousand words”
- Implement corrective measures
 - Replace broken bins
 - Replace dirty or worn signs and labels
 - Target appropriate training to those areas that need it
- repeat



Record Keeping and Reporting



- Collect and manage data
- Meet reporting and tracking requirements
 - JCAHO,
 - State
 - Federal Regulators
- Report trends and results to upper management



Environmental Program Development



- Develop new programs
 - Use H2E for ideas and guidance
 - Hg Elimination
 - Recycling upgrades
 - Environmentally Preferable Purchasing
 - Community based environmental initiatives,



Recognition and Awards

- Work with marketing staff to produce press releases & internal news stories
- Pursue awards
 - National
 - State
 - County
 - Industry

Time Budgets



Days required

- Programs fail due to a lack of a committed budget
 - Commit to needed FTEs
 - Don't steal them back;
 - OK, that's done can you do this now?

	Audit, Research, Design	Rollout Training	On-going Training	Program Development	First Year/ Annually
100 beds	5	20	12	4	43/16
250 beds	8	40	18	8	72/26
500 beds	10	50	24+	12	96/36
750 + beds	12+	60	24+	18	114/42

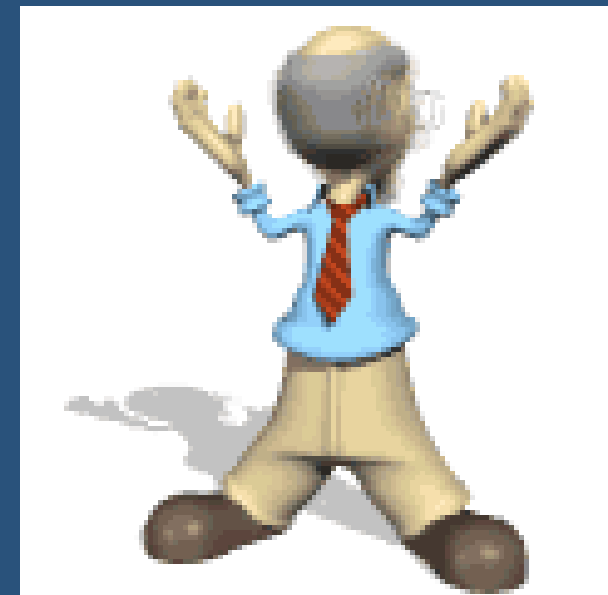
The Missing Link – Program Management



- Each component of the solution is relatively straight forward
- many hospitals still have problems

WHY?

- lack of singular, committed, dedicated management
- Time budget
- Cash budget
- Ability to sell concepts to management



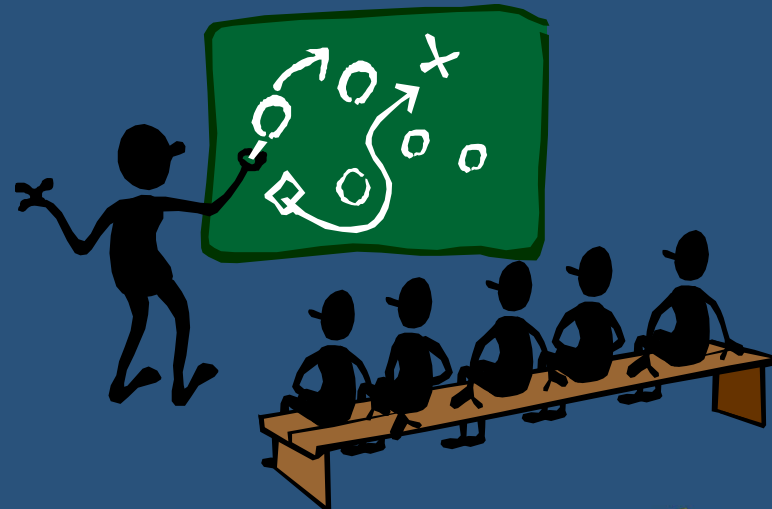
Too many other priorities!

The Missing Link – Program Management



Management costs
money,

- it is worth it!
- Target 200% + return
- spend \$20,000 to save \$40,000+
- Lock it in your budget!



Management!



Benchmarks

- How to measure success?
 - Lbs/bed/day
 - (annual lbs. RMW/average census beds/365)
 - Benchmarks range form 1.5- lbs to 10+lbs.
 - True cost/lb.
 - Total of all red bag costs /
((1 / {%actual medical waste in red bags}) * total annual lbs)
 - i.e. \$100,000 / ((40% actual “bloody” waste)* 300,000 lbs annually)
 - Spending \$100,000 for 120,000 lbs of real red bag waste
 - Actual cost is \$.83 / lb.

Benchmarks



- Exploring multi-variable models
 - Lbs
 - OR cases and type
 - Births
 - Lab transactions
 - What else??



Results

Many examples of success

- Internal
 - Beth Israel, NYC,
 - 4 M. lbs/year to 1.1 M.
- Out sourced
 - Hospital Of University of Pennsylvania, Philadelphia
 - 2 M. lbs to 720, 000
 - Pennsylvania Hospital, Philadelphia
 - 750,000 lbs to 360,000

Thank you



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