AbstractID: 3650 Title: A Web-Based Lead Apparel Management System for Medical Enterprises

Purpose:
Accrediting bodies often require facilities to have a system for managing radiation protective apparel. In larger hospitals and medical enterprises, the standardization and monitoring of radiation protective apparel becomes increasingly difficult. The purpose of this work was to develop a web-based infrastructure for inventory control of radiation protective (lead) apparel across a large-scale hospital system.

Method and Materials:
A centralized database was developed and made accessible by a departmental website using Active Server Pages (ASP). Unique identifiers were assigned and entered into the database for the current apparel inventory. Quality control (QC) records – including lead patency checks were also integrated into the system. An automated email notification system was implemented for overdue QC tests. Web-based education modules were posted and an enterprise wide policy was formed to identify staff responsibilities and quality control methodology.

Results:
Responsible individuals were assigned to monitor local section inventory changes and ensure proper care of apparel. Quality checks, unique identification and centralized ordering of apparel were coordinated through the Medical Physics office. For the four major enterprise sections, (two hospitals – with inpatient and outpatient centers) over 1081 different pieces of lead apparel were uniquely identified, inventoried and inspected. The web-based system allowed staff and managers across the enterprise to access current inventory and latest quality control results for apparel in their section. Reminders of overdue checks are sent out monthly with no user interaction.

Conclusion:
The web-based information system is effective at dissemination of information throughout a medical enterprise. Centralized systems of inventory control and quality assurance testing reduce redundancy throughout departments. Assigning unique identifiers has the potential to reduce conflicts in inventory management and provides a system to return apparel that has been accidentally moved. Policy formation encourages this integration throughout the enterprise.

Conflict of Interest (only if applicable):