

From: Davis Geach, President/CEO

To: Fredric Adair, Chief Compliance Officer

Re: A Data Repository is needed for hospital efficiency

The Board of Directors has suggested that we put a team together to develop a request for proposal (RFP) for the installation of a data warehouse (DW) into the Hospital's infrastructure. The data warehouse will collect and disseminate information from across most of the hospital departments and, due to the sensitive nature of some of the information, I am sure that we will need to consider a number of laws and regulations in its design. As our Compliance Officer, you already work with most of the hospital departments and you are familiar with many of the laws and regulations that could bear upon the collection and distribution of this information. Therefore, I am asking you to act as the team leader.

You will need to assemble a team of hospital employees that can aid you in determining the requirements of the data warehouse system that we will build. The team members should be subject matter experts (SMEs) with capabilities and knowledge that will be able to identify the legal and regulatory requirements for storage of data from their department or division. Please provide an executive summary identifying the team members and provide your reasoning for selecting each one based on knowledge, skills and data ownership. I know this will require you to pick and choose from a pool of very capable people, but you want a team, not a committee.

From: Fredric Adair, Chief Compliance Officer

To: PFCH Executive Officers

Re: Request for Input – Data Warehouse

I have been asked to lead a team that will oversee the creation of a data warehouse for Patton – Fuller Community Hospital. A data warehouse is an electronic repository of information collected by an organization that is then shared by the various departments of the organization or analyzed to spot trends that can be used in strategic planning.

As we begin this project, it would be helpful to know what types of information we might want to include in the warehouse. I am requesting that you review the operations and processes of your various departments to see what types of information your department generates and whether that information should be archived in the warehouse. Also, let me know what types of information you use (or wish you could use) from other departments.

We will need to build security into the data warehouse in order to ensure the privacy of our patients and employees. If your department has to comply with any laws or regulations with the data you generate or use, please let me know about the restrictions.

Thank you for your cooperation.

From: Louise McFate <louise.mcfate@pfch.net>

To: Fredric Adair

Subject: Data Warehouse Requirements

Would we be able to use the new system to collect, store and distribute relevant notices from the CDC and the State Health Department regarding outbreaks of infectious diseases?

Louise McFate, Director - Infection Control

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From: Tomeka Tellefson <tomeka.tellefson@pfch.net>

To: Fredric Adair

Subject: Data Warehouse Requirements

Congratulations Freddie! Hope the data warehouse project is something you want to head up. We should do happy hour on Friday at that place on Elm Street. We can either celebrate your appointment or you can cry on my shoulder! I'll pack my dancing shoes in case you're in the mood for a little fun after a couple of drinks.

The pharmacy has lots of documents and information that we track and archive. We also share some information with other departments. For example, we collect the typical personal information for each patient (name, address, telephone number, insurance information, social security number, hospital ID number). Then there is the patient's health information. This would include lists of current medications and dosages, lists of known allergies and prior allergic reactions, and generally some level of medical history and the current condition they are being treated for. We dispense medications based on physician orders. We use unit dose packaging for most medications. As we prepare the meds for each floor, we update our inventory records and note the charge for the patient's account. At the end of the day, we send a record to Accounting noting all of the charges for each patient during that day.

Being able to share information would be a big help. If we want to check a patient's complete medical history, we have to request it from Medical Records which can delay getting the patient their medications. Likewise, we can have noted in the patient's chart that a given medication should or should not be taken with food or that certain foods may affect how a med performs, but we have no way of knowing if the food service people see and follow the recommendations.

Of course, just about all of the information that we use is protected by patient privacy concerns and HIPPA, but I'm sure you already know about that.

What all will we be able to do with this new system? Can we use it to collect information on the inventory and the accessing of the controlled substances? Would we be able to submit records electronically to DEA in the event of an investigation? Could we search medical records with something like Google? That would be helpful? Could our notes relating to meds and foods be pushed to the dieticians so there would no chance that the recommendations would get lost in the paperwork?

Keep in mind that any electronic system needs to check and double check the information that is entered into it. Making a mistake in entering the name of a medication, the dosage or even the patient's weight can have life and death consequences.

Let me know about Friday. ©

Tomeka Tellefson, Director – Pharmacy

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From: Zac Heimel <zachary.heimel@pfch.net>

To: Fredric Adair

Subject: Data Warehouse Security Requirements

Mr. Adair:

We are currently recording our security camera footage on VHS tape. A more up-to-date system would be like the one shown in the movie "Rising Sun". In that movie, the Japanese firm records everything on DVD's.

We should switch to a DVD based system. Then we could store the data from the DVDs in the warehouse.

Zac Heimel, Manager – Security

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From: Nadene Saetteurn, Chief Human Resource Officer

To: Fredric Adair, Chief Compliance Officer

Re: Information Requirements

We are happy to provide the necessary business and legal requirements that are important when storing confidential employee information in a central repository such as a data warehouse. The protection of employee information is a critical part of our job in HR. We are currently capturing 100% of our records using either electronic or by imaging documents received from administrative staff and employees.

Legal Requirements:

Health Insurance Portability and Accountability Act (HIPAA)

The Health Insurance Portability and Accountability Act (HIPAA) of 1996 established physical and technical guidelines for safeguarding the privacy and security of Protected Health Information (PHI). PHI is defined as any information about health status, provision of health care, or payment for health care that can be linked to an individual. The 18 defined Protected Health Information identifiers include names, phone numbers, social security numbers, full-face photographic images and more. Safeguards cover a broad spectrum, from the definition of an emergency mode operations plan, to the physical security of the building storing PHI, to the automatic termination of an electronic session after a predetermined time of inactivity. HIPAA also requires encryption to be utilized when PHI flows over open networks. This is why to comply with HIPAA, email needs to be encrypted when it includes any of the 18 defined PHI.

Privacy Act of 1974

The Privacy Act of 1974, Public Law 93-579, was created in response to concerns about how the creation and use of computerized databases might impact individuals' privacy rights. It safeguards privacy through creating four procedural and substantive rights in personal data. First, it requires government agencies to show an individual any records kept on him or her. Second, it requires agencies to follow certain principles, called "fair information practices," when gathering and handling personal data. Third, it places restrictions on how agencies can share an individual's data with other people and agencies. Fourth and finally, it lets individuals sue the government for violating its provisions. Excerpt from http://epic.org/privacy/1974act/

You should also check to see if there are any State laws or regulations concerning the protection of social security numbers or other Personally Identifiable Information (PII).

From: Johnny Brooks < johnny.brooks@pfch.net>

To: Fredric Adair

Subject: DW Input

Records of equipment procurement, training and maintenance are maintained by the Hospital Equipment Management Program of which my division is responsible for managing. We have the current procedure which departments use to check on equipment purchases, warranties or training manuals. I believe this could be streamlined by using a central repository that Departments can use to access their reports and track equipment. At this time we:

- Record the equipment's description, make, model number and serial number.
- 2. Affix a Patton-Fuller Community Hospital asset identification tag to the equipment.
- 3. Provide the Chief Financial Officer with a record of the asset identification tag number and the equipment's identifying information. A separate copy of this information is also maintained by the Director of Plant Operations.
- 4. Coordinate with the department purchasing or leasing the equipment and the office of the Chief Financial Officer to file any necessary documents in order to comply with the requirements of any applicable warranties or guarantees associated with the equipment.
- 5. Coordinate with the department purchasing or leasing the equipment to file any necessary documents in order to comply with the requirements of any local, state or national regulatory bodies and/or any accrediting bodies that provide accreditation to Patton-Fuller Community Hospital.
- 6. Acquire at least two (2) copies of all training, maintenance and user's materials that are provided by the manufacturer and/or seller of the equipment.
 - a. One (1) copy of the materials is maintained by the hospital department that is purchasing or leasing the equipment.
 - b. One (1) copy of the materials is maintained in a central library by the Director of Plant Operations.
 - c. Classify the equipment for inclusion in the Hospital Equipment Management Program.
- 7. Equipment Classification
 - a. All electrical or mechanical equipment owned or leased by the Hospital or any of its departments is classified into one of the categories utilized by the Hospital Equipment Management Program.
 - b. The hospital's equipment classifications are reviewed every three years by the Director of Plant Operations, the Chief Operations, the Chief Financial Officer and the Chief Compliance Officer.

We can eliminate the distribution of copies throughout the hospital by having a central repository to store images of the invoices, equipment ID tag information and have the ability to share this information to

all concerned parties in a more efficient manner. The Chief Financial Officer will be able to access the information he needs without searching paper files. This will allow the three year review of the hospital's equipment classification to be easily accessed by all parties participating.

I am excited about the opportunity to eliminate the amount of paper that my division distributes throughout the hospital to manage the Hospital Equipment Management Program. The following features will be important to the success of this project. The data warehouse will store images of paper invoices, staff must have the ability to search by hospital tag identification numbers and retrieve any information associated with the purchase, depreciation, and retirement of equipment. Only members of the Plant Operations division will have the authority to add, change or delete records. All other divisions will have inquiry access only. Once a Department or division needs updating, a service request can be forwarded to our office by email.

Thank you for this opportunity to save a few trees!

Johnny Brooks, Manager – Plant Operations

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From: Diamond Sotello <diamond.sotello@pfch.net>

To: Fredric Adair

Subject: Data warehouse - Research

At this time I have several proposals on my desk that will benefit from the vast amount of information that will be stored in the new data warehouse. I am interested in having the ability to utilize the hospital data warehouse for data mining of all the information collected in hospital records. I believe this information will be useful in our division's analysis of community residents, childhood obesity, infection control, STD statistics and so much more. We will be able to query tables of information that is collected now in filing cabinets and stored in separate Departments. This will provide the necessary statistics to analyze the population we service in this community and support our funding request to our shareholders and board members.

I support the decision to add an information repository to improve information management at the hospital.

Diamond Sotello, MD, Ph.D, Director of Research

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From: Frank Sainliere <frank.sainliere@pfch.net>

To: Fredric Adair
Subject: New Data Warehouse

Ms. Toher, Dir. of Food and Nutritional Services, showed me your memo regarding the new data warehouse. Palmer Catering and Canteen, the company that runs the Hospital's food services, uses a just-in-time inventory system. The system has worked just fine for many years, but the severe storms last year and then again this winter caused delays that saw us run out of some items. We got by, but we don't like getting caught short.

One of the downsides of a JIT system is that even if we're not hit by a storm, the storm could cause disruptions in the distribution system that can impact us. They are predicting that severe weather will increase and this it is all somehow connected to "global warming". Palmer Catering and Canteen is going to be proactive on this and they are increasing the amount of foodstuffs that we will carry on-hand. That way, if we have more severe weather, we won't run out of food.

The plan is to increase the amount on-hand by 18%. How much room would we be able to use in the new warehouse for our storage needs?

Frank Sainliere, Manager – Food & Nutritional Services

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From: Carola Mossien <carola.mossien@pfch.net>

To: Fredric Adair
Subject: DW Considerations

Data security and data integrity are essential to the hospital's operation. Our clients and employees depend on us to protect their personally identifiable information (PII). We are also just as legally responsible for their personal health information.

Using a combination of hardware, software, and advanced procedures, Patton-Fuller Community Hospital should strive to ensure that all aspects of its information archiving services are secure and that there will be no unauthorized access to any personally identifying information contained in our data warehouse.

We should ensure that a security role-based system is part of the development requirements for accessing information stored. The roles will increase as job duties and job responsibilities increase. The following types of controls should be used for access roles and responsibility: Edit, Inquiry, or Administrative rights.

Be sure to discuss the Health Insurance Portability and Accountability Act (HIPAA) with the Chief Medical Officer who will inform you of the HIPAA requirements.

The Federal Health Administration provides guidelines to hospitals for handling personal health information, be sure to review these.

Carola Mossien, Director Q.A. / Risk Management

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From: Zachary Hardie, Chief Financial Officer To: Fredric Adair, Chief Compliance Officer

Re: Data Warehouse

I support the decision to add an information repository to improve information management at the hospital.

From: Vesta Luzania <vesta.luzania@pfch.net>

To: Fredric Adair

Subject: Data Warehouse Requirements

Per your request, here are the data warehouse requirements for the Hospital's medical records.

The storage of medical records in the repository will provide a central location for medical staff in multiple areas of the hospital to access this information in a safe manner without paper files causing delays in treatment.

Below are a few regulations that a contractor must take into consideration when placing medical records in a central location:

The Federal Rules of Civil Procedure (FRCP) is a body of rules that govern court procedures for managing civil suits in the United States district courts.

On December 1, 2006, a number of important revisions to the FRCP went into effect. Among them, organizations must manage their electronically stored information (ESI) so that it can be produced in a timely and complete manner when necessary, such as during legal proceedings. Compliance with the FRCP should figure prominently in the data warehouse retention policy of the hospital and doctors that could potentially be involved in civil litigation. Email and electronic records have become extremely common forms of admissible evidence during the legal discovery process, the period of time when companies involved in litigation are asked to produce all relevant documentation and turn it over to counsel.

Health Insurance Portability and Accountability Act (HIPAA) The Health Insurance Portability and Accountability Act (HIPAA) of 1996 established physical and technical guidelines for safeguarding the privacy and security of Protected Health Information (PHI). PHI is defined as any information about health status, provision of health care, or payment for health care that can be linked to an individual. There are 18 defined Protected Health Information identifiers including names, phone numbers, social security numbers, etc. Safeguards cover a broad spectrum, from the definition of an emergency mode operations plan, to the physical security of the facility storing PHI, and even the automatic termination of an electronic session after a predetermined time of inactivity. HIPAA also requires encryption to be utilized when PHI is transmitted over networks. Thus, to comply with HIPAA, email would need to be encrypted if it includes any PHI.

Privacy Impact Assessment The Privacy Impact Assessment (PIA) is a checklist now required by the E-Government Act of 2002 that should be used when designing and developing a new or amended information system that contains information on individuals. The purpose of the PIA is to ensure that privacy protections and Privacy Act requirements are considered in information systems.

PIAs should be considered with new electronic information collections from the public, collections of information from websites, creation of new databases or amendments of others, and use of new technology that may impact individuals.

For more information see the following link:

OMB guidelines on The E-Government Act of 2002, Sec. 208 on Privacy

Provisions (see Privacy Impact Assessment requirements)

http://www.whitehouse.gov/omb/memoranda/m03-22.html

Vesta Luzania, Director – Medical Records

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