

Storing information



LIMS is Laboratory Information Management System; this is software that is used in labs to exchange information from one lab to the other. Some of the features include real time data tracker or even data exchange. This is the type of system used in laboratory's to store information rather than storing all files onto their computer systems and if need be for future use, they will have to go through the archives of the files in order to find them and it's the same story for hard copies, they pile up so much it's hard to get a hold of the specific files or documents you'd need therefore we have the LIMS.

LIMS is a great alternative to the conventional storage of files onto your personal computer or even external hard drives as LIMS provides real time data exchange from one lab to the next within an industry i. e. a hospital or even a college. 3 The LIMS system can store written and graphical data as such, from that it can produce relevant information such as results. It can be also used to monitor good lab practices such as good sampling collection, good testing, risk assessment and good quality assurance.

Data coming into the LIMS system can be then distributed through the facility to be shared, easy error-free process used to label every data with bar codes and it also has the capacity to let the person entering the data to give permission to only to the relevant people that can view the data. Hand-held devices are also compatible with some of the LIMS systems therefore entering data through the hand-held devices and onto the LIMS network giving much more flexibility to the user and other can view it from their devices as well.

This can be very useful when it comes to doing very large research such as peer reviewing can have lots of data coming in and out from each scientist. LIMS is evolving every time as new features are added onto it often, but as laboratories keep changing and technologies keep advancing so does the LIMS system as it will have to be updated to suit the new changes and technologies.

LIMS have a base set of function that defines it and some these features includes: * the reception and log in of a sample and its associated customer data * the assignment, scheduling, and tracking of the sample and the associated analytical workload * the processing and quality control associated with the sample and the utilized equipment and inventory * the storage of data associated with the sample analysis * the inspection, approval, and compilation of the sample data for reporting and/or further analysis Processes involved in storing information in a scientific workplace (M4) Every work carried out in the laboratory will be stored for future reference or just archiving and this will result in large amounts of information being produced. This can be as simply putting the file into a cabinet into a nightmare; therefore there are procedures that are there in how to store information, what type of information is needed to be stored and why.

COSHH - COSHH records are kept to insure the awareness of the health and safety issues when handling harmful or volatile substances being used within an organisation. As such that if an incident does occur and the reason is unknown to why it happened, then going through the records could explain or at least give a hint as to why the accident happened. The personal

responsible in storing the information are the technicians and whoever is involved in the ordering, storing and the use of the substance.

Scientific data – Scientific data can be every day to day task that are carried out in the laboratory such as experiment results or just observations. All of these data are needed to be kept for future reference as comparing data can be very useful in order to come to some conclusions. All data within the facility or any that have been obtained from other sources has to be stored safely. The people who are responsible for storing the data are head of departments, managers and any else who are working in the laboratory.

Scientific apparatus – The data on the apparatus used, stored, broken or bought all need to be kept as keeping track of what you have is important therefore avoiding any inconvenience due to storage of the apparatus or the availability of them. Head of departments, deputies anyone who is involved in the use, storage or ordering of the apparatus needs to keep data on the apparatus. This can be found in most science work places i. e colleges, factories and even pharmaceuticals. All of these work places requires the use of scientific apparatus therefore needing to store and update the data on them.

Waste disposal – Waste disposal is a very important due to the environmental factors involved in it. Whenever disposing of waste from the laboratory such as chemical waste, biological matter or radioactive metals. Some of the most toxic, radioactive and volatile substances would be stored away safely in the appropriate containment for collection for the local authorities to come and collect the waste and safely dispose of them.

Therefore keeping track of how much waste is produced and thrown away is important.

The personnel who are responsible for keeping these records are stores technicians and those involved in disposal; heads of department may need to authorise costs of disposal Health and Safety records - These records needs to be kept as when a Health and Safety inspector come from outside an organising comes in to inspect the facility such as a college or a work place, therefore when the inspector asks for the records to show that the organising has been keeping everything to a safe standard they can show them the records and prove that they followed the safety standards.

Heads of department, health and safety officers and possibly others who have special responsibilities are all required to keep records to any changes or inspection done. Health and safety is found in every work place from science labs to even just a simple call centre. All of the work place have to have some sort of health and safety in compliance with the government law in order to protect their workers.

Not only do they store health and safety records the also store records of when accidents do occur and near misses as well, by storing these information we are able to work out what was the cause of the accident or near miss therefore in the future there will be more careful planning in order to prevent them from happing again. Training records - Training records are especially important as they hold the level of qualification of a person where he or she works.

As giving a job to the wrong person who has yet to receive training or hasn't had the adequate training is an accident waiting to happen. Therefore keeping track of all the staff at what level they are is important and as now a days the world is developing fast and new skills needs to be learnt in order to keep up with the changes. Training officer, heads of department, supervisors, human resource department and individual members of staff are all responsible for the training and knowing what level is everyone at.

Security - Security at the work place is very important particularly in labs regardless of the type of experiment every lab needs to be secure preventing any unauthorised entry and accidents. Some of the more serious experiments such as handling live disease need to be particularly heavily secure because of the risk of the actual disease being either stolen or used as a bioweapon or an unauthorized person causing an accident and then an outbreak of the disease. Head of department, security staff, health and Safety officer and all staff are all responsible for the storage of the security of the labs.

Areas such as a forensics lab need to be kept under tight security in order to best preserve the evidence and preventing anyone from tampering with it or even accessing files on the network without permission. Other areas such as the pharmaceuticals also needs to have security because of the personal information they have of their patients who got to them to collect their medicine and they can have their type of illnesses as well therefore needing good security to protect that information.

Say if the information was hacked and some small organisation got hold of the information, what they could do from there is endless i. e. they would call up the patients and offer them alternatives medicine where it could be highly dangerous as they don't know what they are getting from them, it could be a fake medicines with toxic substances in them which can harm they human body or even result in death. So there you have it there now a days there are even fake medicines going around the medical market and most of the times they offer cheaper prices to pharmaceuticals making them very tempting into buy fake products.

There was even the case of fake needles for diabetics that had been in the NHS and they were giving it out to patients with diabetes. Those needles looked very similar to the real thing that even doctors were fooled but they were found to have the incorrect sharpness, in fact they were found to be too sharp causing redness for days and they have not been sterilised using radiation creating a greater risk of infection. All the more reason to have good security especially in the medical word.