iRad Sales Group
Medical Imaging Specialists

WELCOME TO THE ULTIMATE

CT PROJECT PLANNING GUIDE

INTRODUCTION

If you have downloaded this Ebook, you are considering buying a CT.

Computed Tomography (CT) is a medical imaging technique that uses X-ray technology to produce detailed, cross-sectional images of the body. CT scanners are commonly used in hospitals and clinics to diagnose and monitor a wide range of conditions, including cancer, heart disease, and traumatic injuries.

With every news media focusing on ChatGPT, you may have requested Google identify the process for you. We did and the answer surprised us, it provided a good brief overview of the process but did not get into the details of the nuances in planning for a major equipment installation.

See for yourself...

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The installation of a CT scanner requires careful planning and execution to ensure that the equipment is properly configured and calibrated. This process typically involves several key steps, including site preparation, equipment delivery and setup, and quality assurance testing.

The first step in installing a CT scanner is to prepare the site where the equipment will be located. This may involve making changes to the physical layout of the space, such as installing additional electrical outlets and running data cables. It is also important to ensure that the floor is level and that the room is properly ventilated to dissipate the heat generated by the scanner.

Once the site has been prepared, the CT scanner and associated equipment can be delivered and set up. This may involve assembling the scanner and connecting it to the power supply and data cables. The manufacturer's instructions should be followed closely to ensure that the equipment is properly configured and calibrated.

After the CT scanner has been set up, it is important to conduct quality assurance testing to ensure that the equipment is working properly. This may involve performing a series of scans on test objects, as well as analyzing the resulting images to check for any errors or artifacts. Any issues that are identified during the testing process should be addressed before the scanner is put into clinical use.

Overall, the installation of a CT scanner is a complex process that requires careful planning and execution to ensure that the equipment is properly configured and calibrated. By following the manufacturer's instructions and conducting thorough quality assurance testing, it is possible to ensure that the CT scanner is able to provide high-quality images and support the diagnosis and treatment of patients.

In conclusion, CT technology has become an indispensable tool for medical diagnosis and treatment. The installation of CT scanner requires careful planning and execution to ensure that the equipment is properly configured and calibrated.

Site preparation, equipment delivery and setup, and quality assurance testing are some of the key steps in the installation process. It is also important to conduct thorough quality assurance testing after the installation to ensure that the equipment is working properly before clinical use.

ChatGPT gave you the basics but it definitely did not cover the specifics. Whether you are replacing an existing CT suite or purchasing a new CT for your facility this project planning guide will give you all of the details and questions you need to consider and plan before the CT purchase so the installation goes smoothly.

Our Mission is to help you with a full business solution that improves your patients'
lives with the best imaging solution that won't break your budget.

First, ask yourself and any other stakeholders in the project the following questions...

CT SCAN OFFERINGS

What scans do you want to perform with your new CT?

- A CT scan is a “fast tool” for examining the chest, abdomen, and pelvis.
- CT is used to examine patients with severe injuries from incidents such as motor vehicle accidents also known as Trauma CT.
- CT scan is performed on patients with acute symptoms such as abdominal pain or difficulty breathing.
- A CT scan is often the best method for detecting many different cancers, including lung, liver, kidney and pancreatic cancer since the image allows a physician to confirm the presence of a tumor and measure its size, precise location and the extent of the tumors involvement with other nearby tissue.

- CT is commonly used to assess for pulmonary embolism (PE--a blood clot in the lung vessels) as well as for abdominal aortic aneurysms (AAA).

- CT is invaluable in diagnosing and treating spinal problems and injuries to the hands, feet, and other skeletal structures because it can clearly show even very small bones as well as surrounding tissues such as muscle and blood vessels.

- A CT can be used for Cardiac Calcium Scoring (CC) to determine a patient's risk of heart disease or a CT can be used to complete a Cardiac Angiogram to diagnose a variety of heart diseases.

The reason it is important to determine the types of scans to be performed up front is that you want to purchase the right type of machine. For example, if your clinic has no intention of performing any heart procedures now or in the future then you may be able to purchase a lower slice count CT and still have excellent image quality but if the intention is to perform cardiac procedures then the type of scanner will be different.

STATE REQUIREMENTS

If you have never offered CT scans in your facility and are unaware of the regulations in your state regarding CT, this is the perfect time in your planning process to see if you are required to apply for a Certificate of Need (CON).

The National Conference of State Legislatures has an excellent website that outlines a general overview of all states and the requirements they have for CON. If you determine you need to apply for a CON, it is best to start this process immediately. Approval time varies by state and can be as quick as 2 months and as long as 1 year.

Make sure you understand everything that is involved from start to finish so that you do not delay the installation of your CT.

BUDGETING

After you have decided the types of scans you plan to perform, you should consider your budget. Today there are so many variations of CT Scanners that the budget can range from $1,750,000 for a dual energy 256/512 slice count to $180,000 for a quality refurbished VCT 64 slice that can perform cardiac procedures as well.

Realistically, for a new high quality CT scanner that is a workhorse, with a top notch low dose management system, and cardiac capabilities pricing is in the $500,000 range.

DESIGN & SPACE PLANNING

Next up, determine what space you will be placing the CT in, if it is a new construction, it is important to incorporate the design team from the company who you are purchasing the equipment from at the start. There are many important questions related to HVAC, Electrical, Delivery that should be addressed as soon as possible in the design to save both time, money and frustration at a later date.

If this will be a replacement of an existing CT, many of the design issues will have been addressed previously and it is a matter of ensuring that the new equipment easily replaces the old. Some examples of possible issues include pulling electrical cables thru existing floor troughs and the electrical supply to the equipment.

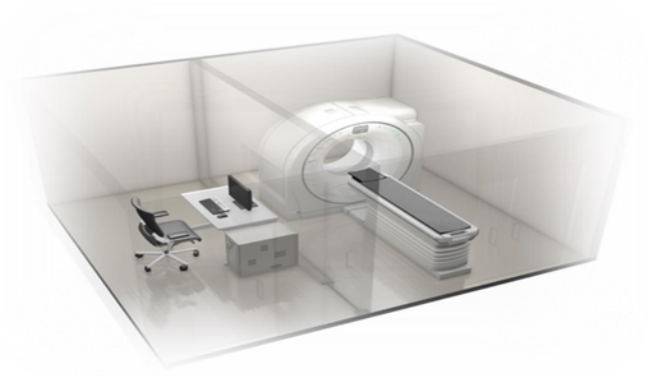
The third option is that you have unused space in your existing clinic and have decided that adding CT to your patient services will improve patient compliance and help you as a practitioner treat and diagnose illness earlier. While this option often can be somewhat overwhelming at the start it often ends up being less stressful overall. Realistically it will most likely require some reconstruction of your clinic, including an update to the existing electrical equipment, heating and cooling system as well as possible flooring changes to accommodate the installation of cabling between the CT component cabinet and CT control room.

Once you determine the space, the types of scans and if you are in need of a CON it is time to make an equipment selection and simultaneously hire an architect to start the design process.

All of the major healthcare manufacturers offer CT options that achieve your goals with implementation, including GE, Philips, Siemens, Canon/Toshiba, Fuji, iCRCO. There are also many companies that offer older systems that have been refurbished and are a more affordable option with the ability to provide excellent imaging.

As you select equipment and a company to work with, ensure that they will include not only the equipment, professional installation, applications training for your staff, a dedicated Project Manager, a complete room plan for your installation including rigging and delivery paths and the ability to service the equipment after installation. No matter the equipment that is selected there should be a product specification sheet, similar to the one attached here for the **Fuji Scenaria View CT**. The specification sheet outlines and identifies every specification for the room as well as a typical room layout.

Once the design has been completed and all the necessary approvals have been obtained from the proper governing bodies, construction/renovation of the space can begin.



It is important to have a construction kick off meeting with all of the stakeholders as well. This provides opportunity for open communication and staff understanding because as with all large construction projects there are always moving targets.

Weekly check-in meetings are also very important, it helps to ensure that the construction team is updating the installation team on any possible variables to the schedule. With the environment today, it is often likely that products or supplies could be delayed for delivery.