# Radiation Safety



# Top tips when planning diagnostic X-ray equipment installation

#### 1. The Team

It is important to consult, not only with stakeholders, but more widely in order to incorporate the input of various interested parties before the design becomes inflexible and difficult to change. For example (list not exhaustive):

- Radiology
- Radiation experts
   (Radiation Protection Adviser & Medical Physics Expert)
- Estates
- Patient representative body
- Infection control
- Clinical planner

- Legal support
- Finance and procurement advisers
- Architect
- Main Contractor
- Specialist Subcontractor
- Equipment Manufacturer

# 2. Strategic Plan

In composing of a business case, remember to include:

- Budget and who is in control during, and post, installation
- Links to overall strategy of organisation;
- Contractual relationships (In-house managed; Turnkey, PFI etc.)
- · Responsibilities, activities and sign off

## 3. Project Brief

It is important to define clear project objectives and outcomes which can be referred to during commissioning. The brief should include site information; communication routes; responsibilities and activities to reach sign off at each stage and penalties if not met.

## 4. Project Design

The design should include a detailed equipment and room specification; cost plan; ongoing risk assessment listing and radiation shielding requirements and solutions. The schedule/timeframe should be realistic given the resources available to manage the project and include time for commissioning and applications training. Given the specifics of the project and the contracts required, this may include a single organisation or many.

#### 5. Construction

Development of 'As Built' information log and operating and maintenance manual data. It is useful to include the Radiation Protection Adviser during the build stage since construction can be checked and any alterations made whilst contractors are still on site and, if necessary, before equipment installed.

### 6. Handover

Following commissioning of equipment and services (e.g. electrical safety testing), a site visit with contractors is useful to produce an agreed snagging list. A maintenance schedule can be produced and a final review of all contracts prior to sign off.