

ACR Application Process: Pitfalls to Avoid

This presentation will discuss the phantom physics tests required for ACR CT Accreditation. In particular it will focus on pitfalls to avoid in setting up the special ACR CT Phantom and performing the tests. In order to successfully complete all of the imaging tests, it is helpful to understand the internal construction of the ACR Phantom and its proper use. To that end, the details of the ACR CT Phantom construction will be presented. The most frequent failure is improper alignment of the phantom. Helpful methods of proper phantom alignment will be presented with examples of correct and incorrect images.

Another area of difficulty is determining and implementing appropriate "Axial" CT scan protocols as substitutes for "Helical" protocols. Examples for several different types of CT scanners (multiple detector row) and different manufacturers will be presented.

The ACR CT Phantom has 4 different imaging sections; the proper scanning of each of these sections will be presented. Commonly seen problems in imaging these sections will be presented. Finally, the radiation dose measurement process required for the ACR Physics submission will be discussed, again with commonly observed problems.