

Letters to the Editor

ACQUISITION OF CAMERA FLOOD IMAGES UNDER CLINICAL CONDITIONS

It has been reported (1) that to ascertain adequately the characteristics of the NaI (Tl) crystal of a scintillation camera, flood field images should contain 1,000 K to 2,000 K counts. Tests of crystal uniformity and spatial resolution obtained in this manner, in conjunction with commercially available phantoms, produce scintigraphs in which possible defects in uniformity and excellent spatial resolution are often noted. However, I question the value of routine acquisition of 1,000 K to 2,000 K counts for flood field uniformity and spatial resolution checks. I believe that any quality control analysis of scintillation camera performance, as determined through the use of photographic film, should be imaged under conditions representative of clinical imaging. This means that count acquisition of quality control films should closely correspond to that obtained during patient imaging.

The objective of routine scintillation camera quality control films should not be to determine maximum system resolution or to produce an aesthetically acceptable quality control film—but to determine system performance under operating conditions encountered during patient imaging. In this way, the uniformity and maximum achievable spatial resolution that is to be expected during clinical operation can be determined.

It is not only in the routine quality control program that one should be interested in clinical count acquisition. The prospective purchaser of new scintillation camera equipment should also be wary of the effects of increased spatial resolution and improved uniformity with increasing count acquisition. When viewing scintigraphs of phantom studies presented during a sales presentation, it is wise to determine the imaging technique used to obtain these films. If these sales films were obtained under a clinically unrealistic situation, a prospective purchaser should ask to visit an existing facility to ascertain the actual capabilities of the system by viewing patient studies.

I want to stress the importance of this spatial resolution-count acquisition phenomenon. Simply by increasing accumulated counts, spatial resolution will be increased up to the system's maximum capabilities. Thus, one should not expect the same resolution measured with a 2,000 K-count bar phantom as with a 500 K-count brain scan. Therefore, to determine resolving capabilities of any Anger camera system, phantoms should be obtained using a count acquisition that closely patterns each diagnostic procedure currently performed in your nuclear medicine department.

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Reference

1. Rollo FD: Quality assurance in nuclear medicine. In *Nuclear Medicine Physics, Instrumentation and Agents*, Rollo FD, ed. St. Louis, CV Mosby Co., 1977, pp 322-360

ON ANONYMITY IN NMT

I would like to comment on a letter published recently (June 1979) in the *JNMT* entitled "The Nuclear Medicine Technologist and the Commercial Radiopharmacy."

First, may I call your attention to the December 1978 issue of "Isotopics," my chapter's (Mideastern) newsletter, in which Larry Camper wrote a letter from the president concerning this issue: "any communication made public should be subject to criticism and editorial review. This becomes difficult when an author chooses to be anonymous. Regardless of the controversy involved, an author's purpose would seem better served by associating his name with this publications."

I was shocked upon reading the June issue of the *JNMT* to find this anonymous letter published in a national medium! I wholeheartedly agree with Mr. Camper on this matter. I have complete faith in my fellow colleagues' ability to address any controversial issue with the highest degree of professionalism and can count on them to affix their names to a publicly released opinion.

I would hope that you will not see fit to publish any more anonymous viewpoints.

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REPLY

Ms. Clay provides me with a unique opportunity to share my feelings on the letter in question. It was a difficult decision to publish a letter anonymously for all the reasons that Mr. Camper mentions. However, the content cannot be considered invalid merely because of the absence of a signature.

The subject matter merited the attention of the readership. In my experience, few technologists are aware of the potential aspects, both positive and negative, of commercial radiopharmacies. To my knowledge they had never been discussed in print, so the arrival of the letter was motivation to risk criticism and publicize the controversy in the best interest of the group. One of my personal goals as Editor of the *JNMT* is to make sure that technologists are aware of the state-of-the-art—scientifically and professionally. By professionally, I mean how the