as patient-specific bladder volume, bladder residence time and filling and emptying rates can easily account for a factor of two difference in the dosimetry estimates. Furthermore, the calculated doses are being used as surrogates for risk. The uncertainty associated with these risk estimates (i.e., weighting factors) is at least as large as the uncertainty associated with the doses. Given all these uncertainties, small differences ($<\pm 50\%$) in estimates of dose are not very meaningful.

Despite the uncertainties, the Guidelines and Communications Committee listed effective dose or effective dose equivalent in dosimetry tables to provide a simple way to compare the magnitude of doses for a variety of nuclear medicine procedures. Important limitations of using these dose estimates as a surrogate for risk have been pointed out by the SNM's Medical Internal Radiation Dose committee (*7*) as well as the ICRP itself (*4*). For example, the weighting factors used are derived from age-weighted populations that have normal life expectancy. Application of these weighting factors to a specific age population that may not have a normal life expectancy may diminish the value of effective dose or effective dose equivalent as a simple surrogate for risk.

Any questions, comments or corrections to the SNM Procedure Guidelines should be directed to the SNM Guidelines and Communications Committee.

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Photodegraded Nifedipine Augmented Tumor Cell Uptake of Gallium

TO THE EDITOR: The recent article by Luttropp et al. (*1*) on the use of photodegraded nifedipine to promote the uptake of gallium into tumor cells is interesting and opens up several possibilities. The authors mention that the greatly augmented transferrin-independent gallium uptake into cultured tumor cells "may offer a way to improve the use of ^{67}Ga for tumor imaging." The 1000-fold increase in the transferrin-independent gallium uptake pathway made this 50-fold greater than in the transferrin-dependent pathway. As well as raising the possibility of usefulness in diagnostic imaging, this immediately raises the possibility of radiotherapy with gallium. In 1953, Andrews et al. (*2*) used ^{72}Ga to treat bone tumors but were unsuccessful because of the unfavorable radiation dosimetry. The use of photodegraded nifedipine may revive that method of therapy, especially in such tumors as lymphomas, which already often show good transferrin-dependent gallium uptake.

The other possibilities raised include strongly influencing uptake at various sites in the body for other radiopharmaceuticals, both in physiologic processes and in pathology. There may be many modifiers other than photodegraded nifedipine that can accomplish this. There have already been reports on such use with less dramatic results than with photodegraded nifedipine. Retinoic acid has been used to increase radioiodine uptake by causing redifferentiation in some dedifferentiated thyroid cancers (*3*). Accumulation of damaging ^{131}I in salivary glands during therapy for thyroid cancer has been reduced using amifostine (*4*). Such techniques would be ideally suited for nuclear medicine because of the inherent biochemical nature of nuclear medicine diagnosis and therapy.

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Variability of Quantitative Scintigraphic Salivary Indices in Healthy Subjects

TO THE EDITOR: Salivary glands are assuming greater significance in recent days. Multiple and varied roles have been attributed to salivary contents and secretions. Apart from the widely known role in bolus formation, secretion of digestive enzymes and maintenance of oral hygiene, the reduction in the buffering capacity of saliva is being increasingly implicated in occurrence of gastroesophageal reflux disease and esophagitis. Absence of neutralizing capacity of salivary bicarbonates and other bases potentiates the acid reflux-based esophageal damage, as has been recently reported (*1*). Apart from the secretion of salivary immunoglobulins such as IgG, IgA and IgM, it has been speculated that the salivary glands may have a role in neuroimmunomodulation. In laboratory rodents, factors extracted from salivary gland have been shown to stimulate lymphocyte proliferation, to affect the weight of the thymus, spleen and lymph nodes, and also to induce immunosuppression in several in vivo animal models. The endocrine functions of the salivary gland include production and secretion of epidermal growth factor, nerve growth factor and vasoactive intestinal peptides, among others. In this context, the ability to quantify salivary function assumes greater importance.