NMT AV Reviews

Reviewers: Joanne Barnier, Naples Community Hospital, Naples, Fla.; Louis M. Izzo, University of Vermont, Burlington, Vt.; L. David Wells, University of Kansas Medical Center, Kansas City, Kans.; Robert LaDue, University of Iowa Hospitals, Iowa City, Iowa; and James J. Kellner, Stanford University Hospital, Stanford, Calif.

PRINCIPLES OF GAMMA COUNTING

D.L. Horrocks, Ph.D., Beckman Instruments, Inc., Fullerton, Calif., 1974, $125.00 (2 x 2 color slides, cassette tape, booklet).

This audiovisual program consists of 52 slides, a 51-minute tape, and an accompanying booklet. It is designed as a self-instructional experience in which the viewer becomes an active participant by following the booklet as well as the slide tape sequence.

Slides 1 to 22 deal effectively with basic radiation physics. Colorful slides and clear basic explanations introduce the viewer to such topics as the uses of radionuclides, positrons, negatrons, keV, MeV, alpha, beta, and gamma decay. In the same stimulating manner, the photoelectric, Compton and pair production processes are covered.

After the groundwork has been laid, slides 23 to 52 explore the mechanics of gamma detection. Both organic and inorganic crystals are covered in terms of their respective advantages and types of decay they are most suited for. The complete detection process and various nuclide decay schemes are also included in the presentation. All subject material is explained concisely and clearly.

Principles of Gamma Counting is an enjoyable learning experience. It is recommended for educational programs as well as for practicing technolgists seeking to refresh their knowledge.

FOCUSED COLLIMATORS

Richard Witcofski, National Audiovisual Center, Washington, D.C., 1973, $17.00 (2 x 2 color slides, cassette tape, booklet).

This audiovisual unit is an excellent example of a self-instructional module. It consists of 76 slides, a 27-minute cassette tape, and a booklet. The student actively participates in the learning process by choosing to either listen to the description of the slides on cassette tape or to read the slide description in the booklet. The booklet also lists the objectives of the module and ends with a post-test for self evaluation.

The slides are colorful, clearly illustrated, and are, in most cases, "eye captivators." Multiple-choice questions are spaced throughout the unit to permit the viewer to test his grasp of the material.

It is assumed that the viewer of the module is near completion of his educational program. Topics covered are isoresponse lines, resolution, sensitivity, focal point, focal plane, focal distance, information density, depth of field, lead septa, line source response, and full width at half maximum. The topics are dealt with in a logical order with a precise and complete explanation of each.

Focused Collimators has the ingredients for producing an enjoyable and valuable learning experience and should be an asset to educational programs and to practicing technologists seeking to refresh their knowledge.

ASPECTS OF LIQUID SCINTILLATION COUNTING

C.H. Frasier, Beckman Instruments, Inc., Fullerton, Calif., 1973, $93.50 (2 x 2 color slides, cassette tape, booklet).

This is an audiovisual program designed to provide an understanding of liquid scintillation detection. It consists of 32 slides, a 25-minute tape, and a booklet. The learner can utilize all three components of the program or any combination of them.

The slides are both colorful and explicit. The corresponding narration is clear and concise. At times a great deal of information is provided with each slide. When that occurs, there is a danger of

losing the viewer's visual interest because of prolonged viewing of the same slide. (Optimum slide time is considered by many to be 3-5 seconds.)

Before attempting the program, the viewer should have a good radiation physics background. The program covers such topics as positron and negatron decay, Auger electrons, electron capture, photoelectric effect, Compton effect, and pair production. The slide-tape sequence covers each topic in a logical and complete manner and moves effectively from the less difficult to more difficult topics. After dealing with basic radiation physics the module explains beta counting in a liquid scintillator, choice of solvent materials, "cocktail" efficiency, and many practical considerations of liquid scintillation.

Aspects of Liquid Scintillation Counting can be used as a successful learning aid by students and practicing technologists.

JOANNE BARNIER and LOUIS M. IZZO

BRAIN SCAN EXAMINATION PROCEDURE

Larry Cavendish, R.T., and Thelma Leaffer, M.S., Nuclear Associates, Inc., Westbury, N.Y., 1973, $75.00 (2 x 2 color slides or filmstrip, cassette tape, student manual and instructor's manual).

This module includes the didactic as well as the practical aspects of brain scanning. A wide range of topics is covered, some of these being: description of how a brain scan is done, normal brain anatomy, anatomic landmarks and planes, patient positioning, and typical pathologic conditions appearing on brain scans. The student manual includes a list of specific objectives to be accomplished through the use of the module as well as a post-test designed to provide the student with a direct measurement of his learning. The instructor's manual is quite detailed and would be useful to a novice instructor.

Although the idea and format of the module is good, there are numerous technical flaws in the unit. The quality of the slides is poor in most instances and many times there is difficulty correlating the slides with the dialogue. Also, there is a general assumption that the viewer is familiar with nuclear medicine procedures as well as terminology, when, the objectives plainly state that the student needs no nuclear medicine background. There is also a sizeable list of specific discrepancies concerned with various slides that tend to distract attention from the objectives of the module. For example, Slides 11 and 12 were out of order. On Slide 18 "abscesses" was misspelled. Also on Slide 18 abnormalities are listed as "A, B, and C," but the narrator describes them as "1, 2, and 3." Slide 33 refers to the use of a lead apron for a vertex view but the patient is not wearing one. Several other slides are also out of order.

The general consensus of the reviewers is that in its present condition the module could not be recommended. However, since content and idea are good, the module would be useful if the discrepancies were to be corrected.

CONVERSATIONAL ETHICS FOR THE TECHNOLOGIST IN NUCLEAR MEDICINE

Larry Cavendish, R.T., and Thelma Leaffer, M.S., Nuclear Associates, Inc., Westbury, N.Y., 1973, $75.00 (2 x 2 color slides or filmstrip, cassette tape, student manual and instructor's manual).

Conversational Ethics is an audiovisual program consisting of 40 slides that is designed to provide an opportunity for students and novices in the nuclear medicine field to learn some of the "do's" and "don'ts" of patient-technologist relations. The student manual includes an introduction and a list of objectives. After completing the program, the student is given a chance to evaluate his performance by answering the questions in the manual. The instructor's manual is more detailed than the student manual and includes a written narration of each slide as well as practical tips to aid the instructor in presenting the subject matter.

Whenever one deals with interpersonal relationships there are basic rules of conduct that should be adhered to, namely politeness and respect for another person. In a hospital setting the technologist should be aware of the various types of people he will encounter. This audiovisual module impresses on the viewer the need to establish a reassuring and personal rapport with the patient as well as respect for the patient's illness.

One criticism is that the quality of the slides leaves something to be desired. The slides are poorly correlated with the tape making it difficult to follow in certain instances. There are a number of specific discrepancies which take away from the total value of the unit. For example, several slides are out of order and words are misspelled.

Reviewers of this unit were in general agreement that, although there is a need for an audiovisual unit with such content, the technical errors in *Conversational Ethics* prevent them from recommending this module.

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