Complete Summary

GUIDELINE TITLE

Procedure guideline for gallium scintigraphy in inflammation.

BIBLIOGRAPHIC SOURCE(S)

Society of Nuclear Medicine. Procedure guideline for gallium scintigraphy in inflammation. Version 3.0. Reston (VA): Society of Nuclear Medicine; 2004 Jun 2. 5 p.

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Society of Nuclear Medicine. Procedure guideline for gallium scintigraphy in inflammation, 2.0. Reston (VA): Society of Nuclear Medicine; 1999 Feb. 21 p. (Society of Nuclear Medicine procedure guidelines; no. 2.0).

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SCOPE

DISEASE/CONDITION(S)

- Fever of unknown origin
- Pulmonary and mediastinal inflammation/infection
- Lymphocytic or granulomatous inflammatory processes, such as sarcoidosis or tuberculosis
- Osteomyelitis and/or disk space infection
- Retroperitoneal fibrosis
- Drug-induced pulmonary toxicity

GUIDELINE CATEGORY

Diagnosis
Evaluation

CLINICAL SPECIALTY

Nuclear Medicine
Radiology

INTENDED USERS

Allied Health Personnel
Physicians

GUIDELINE OBJECTIVE(S)

To assist nuclear medicine practitioners in recommending, performing, interpreting, and reporting the results of ^{67}gallium (^{67}Ga) inflammation scintigraphy

TARGET POPULATION

Adults and children with clinical indications for ^{67}gallium (^{67}Ga) inflammation scintigraphy

INTERVENTIONS AND PRACTICES CONSIDERED

^{67}Gallium (^{67}Ga) inflammation scintigraphy, including regional, whole-body, planar, and single-photon emission computed tomographic (SPECT) scintigrams, or any combination performed after intravenous injection of ^{67}Ga-citrate

MAJOR OUTCOMES CONSIDERED

Not stated

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Literature searches were performed. In addition, references known to experts and references from the nuclear medicine community were considered.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Not stated

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Drafts of the guideline were submitted to members of the Guideline Development subcommittee (methodologists) and the Task Force (subject experts). These reviewers indicated on a line-by-line basis any suggestions or recommendations for the revision of the guideline. The percentage of agreement for all reviewers was calculated for each revision and compiled by the Society of Nuclear Medicine (SNM) central office. It is expected that the percentage of agreement will increase with each revision.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

When the Task Force and Guideline Development Subcommittee completed their edits, draft procedure guidelines were distributed to the Society of Nuclear Medicine (SNM) Sample Review Group for comment. (The SNM Sample Review Group is a cross-section of approximately 100 nuclear medicine practitioners representing every field of specialization).

The guideline was approved by the SNM Commission on Health Care Policy, the Board of Directors, and the House of Delegates.

The update was approved June 2, 2004.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Background Information and Definitions

^{67}Gallium (^{67}Ga) scintigraphy may include regional, whole-body, planar, and single-photon emission computed tomographic (SPECT) scintigrams, or any combination performed after intravenous injection of ^{67}Ga-citrate.

Examples of Clinical or Research Applications

A. Whole-body survey to localize source of fever in patients with fever of unknown origin (FUO)
B. Detection of pulmonary and mediastinal inflammation/infection, especially in the immunocompromised patient
C. Evaluation and follow-up of active lymphocytic or granulomatous inflammatory processes, such as sarcoidosis or tuberculosis
D. Diagnosing osteomyelitis and/or disk space infection. ^{67}Ga is preferred over labeled leukocytes for disk space infection and vertebral osteomyelitis
E. Diagnosis and follow-up of medical treatment of retroperitoneal fibrosis
F. Evaluation and follow-up of drug-induced pulmonary toxicity (e.g., bleomycin, amiodarone)

Procedure

The detailed procedure recommendations in the guideline address the following areas: patient preparation; information pertinent to performing the procedure (i.e., important data that the physician should have about the patient at the time the exam is performed and interpreted); precautions; information regarding the radiopharmaceutical (i.e., ranges of administered activity, organ receiving the largest radiation dose, effective dose), image acquisition; interventions; processing; interpretation/reporting; quality control, and sources of error.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence supporting the recommendations is not specifically stated.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

The intent of the procedure guideline is to describe gallium scintigraphy in inflammation, in order to maximize the diagnostic information obtained in the study while minimizing the resources that are expended.

POTENTIAL HARMS

Not stated

CONTRAINDICATIONS

CONTRAINDICATIONS

Lactation and pregnancy are relative contraindications. If the patient is willing to permanently discontinue breastfeeding and the gallium study is not emergent, the patient should be asked to stop breastfeeding 2 weeks before the gallium injection. This precaution will significantly decrease the radiation dose to the breast.

If the examination is urgent, the breastfeeding patient must be asked to discontinue breastfeeding for approximately 2 to 4 weeks after the gallium injection. This precaution will significantly decrease the radiation dose to the nursing infant.

QUALIFYING STATEMENTS

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- The Society of Nuclear Medicine (SNM) has written and approved these guidelines as an educational tool to promote the cost-effective use of high quality nuclear medicine procedures or in the conduct of research and to assist practitioners in providing appropriate care for patients. The guidelines should not be deemed inclusive of all proper procedures nor exclusive of other procedures reasonably directed to obtaining the same results. They are neither inflexible rules nor requirements of practice and are not intended nor should they be used to establish a legal standard of care. For these reasons, SNM cautions against the use of these guidelines in litigation in which the clinical decisions of a practitioner are called into question.
- The ultimate judgment about the propriety of any specific procedure or course of action must be made by the physician when considering the circumstances

presented. Thus, an approach that differs from the guidelines is not necessarily below the standard of care. A conscientious practitioner may responsibly adopt a course of action different from that set forth in the guidelines when, in his or her reasonable judgment, such course of action is indicated by the condition of the patient, limitations on available resources, or advances in knowledge or technology subsequent to publication of the guidelines.
- All that should be expected is that practitioner will follow a reasonable course of action based on current knowledge, available resources, and the needs of the patient to deliver effective and safe medical care. The sole purpose of these guidelines is to assist practitioners in achieving this objective.
- Advances in medicine occur at a rapid rate. The date of a guideline should always be considered in determining its current applicability.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Living with Illness

IOM DOMAIN

Effectiveness
Safety

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Society of Nuclear Medicine. Procedure guideline for gallium scintigraphy in inflammation. Version 3.0. Reston (VA): Society of Nuclear Medicine; 2004 Jun 2. 5 p.

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

1999 Feb (revised 2004 Jun 2)

GUIDELINE DEVELOPER(S)

Society of Nuclear Medicine, Inc - Medical Specialty Society

SOURCE(S) OF FUNDING

Society of Nuclear Medicine (SNM)

GUIDELINE COMMITTEE

Task Force

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Authors: Christopher J. Palestro, MD (Long Island Jewish Medical Center, New Hyde Park, NY); Manuel L. Brown, MD (Henry Ford Hospital, Detroit, MI); Lee A. Forstrom, MD, PhD (Mayo Clinic, Rochester, MN); Bennett S. Greenspan, MD (Harry S. Truman VA Medical Center, Columbia, MO); John G. McAfee, MD (George Washington Hospital, Washington, DC); Henry D. Royal, MD (Mallinckrodt Institute of Radiology, St. Louis, MO); Donald S. Schauwecker, PhD, MD (Richard L. Roudebush VA Medical Center, Indianapolis, IN); James E. Seabold, MD (Carl T. Hayden VA Medical Center, Phoenix, AZ); Alberto Signore, MD (University La Sapienza, Rome, Italy)

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

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GUIDELINE AVAILABILITY

Electronic copies: Available from the Society of Nuclear Medicine (SNM) Web site.

Print copies: Available from SNM, Division of Health Care Policy, 1850 Samuel Morse Dr, Reston, VA 20190-5316; Phone: 1-800-513-6853 or 1-703-326-1186; Fax: 703-708-9015; E-Mail: ServiceCenter@snm.org.

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Society of Nuclear Medicine. Procedure guideline for guideline development. Reston (VA): Society of Nuclear Medicine; 2001 Jun (version 3.0). Electronic copies: Available from the Society of Nuclear Medicine Web site.
- Society of Nuclear Medicine. Performance and responsibility guidelines for NMT. Reston (VA): Society of Nuclear Medicine; 2003. Electronic copies: Available from the Society of Nuclear Medicine Web site.

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PATIENT RESOURCES

None available

NGC STATUS

This summary was completed by ECRI on July 20, 1999. It was verified by the guideline developer as of August 5, 1999. This summary was updated by ECRI on May 18, 2005. The updated information was verified by the guideline developer on June 30, 2005.

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