Thallous Chloride TI 201

For complete prescribing information, consult package insert, a brief summary of which follows:

DESCRIPTION: Thallous Chloride TI 201 is supplied in isotonic solution as a sterile, nonpyrogenic diagnostic radiopharmaceutical for intravenous administration. The aqueous solution at calibration time contains 37 mBq (1 mCi)/mL. Thallous Chloride TI 201 is diluted with 0.9% sodium chloride solution. It is made isotonic with 0.9% sodium chloride and is preserved with 0.9% benzyl alcohol. Thallium TI 201 is cyclotron-produced with no carrier added. Radiochemical purity at calibration is at least 97.0%

INDICATIONS AND USAGE: Thallous Chloride TI 201 may be useful in myocardial perfusion imaging for the diagnosis and localization of myocardial infarction.

It may also be useful in conjunction with exercise stress testing as an adjunct in the diagnosis of ischemic heart disease (atherosclerotic coronary artery disease).

It is usually not possible to differentiate recent from old myocardial infarction, or to differentiate exactly between recent myocardial infarction and ischemia.

CONTRAINDICATIONS: None known.

WARNINGS: If studying patients in whom ischemia or myocardial infarction is known or suspected, care should be taken to assure continuous clinical monitoring and treatment in accordance with accepted procedure. Exercise stress testing should be performed only under the supervision of a qualified physician and in a laboratory equipped with appropriate re-suscitation and support apparatus.

PRECAUTIONS: Data are not available concerning the effect on the quality of Thallous Chloride TI 201 scans of marked alterations in blood glucose, insulin, or pH (such as is found in diabetes mellitus). Attention is directed to the fact that thallium is a potassium analog, and since the transport of potassium is affected by these factors, the possibility exists that thallium may likewise be affected. Data are not available concerning the effect of drug treatment (such as antihistamines and corticosteroids) alone or in combination.

A myocardial imaging study was unsuccessful in one clinical study involving a patient taking cortisone and cimetidine the day of the study.

Radiopharmaceuticals should be used only by physicians who are qualified by training and experience in the safe use and handling of radiopharmaceuticals and whose experience and training have been approved by the appropriate governmental agency responsible for the use of radionuclides.

As in the case of any radioactive material, care should be taken with Thallous Chloride TI 201 to minimize radiation exposure to the patient consistent with proper medical management and to ensure minimal exposure to occupational workers.

This drug should not be used after the expiration date on the label. The expiration date will be six (6) days or less after the calibration date.

Do not use if contents are turbid. It is recommended that the product be administered close to calibration time to minimize the effect of higher levels of radionuclidic contaminant pre- and post-calibration.

Carcinogenesis: No long-term animal studies have been performed to evaluate carcinogenic potential, mutagenicity potential, or whether Thallous Chloride TI 201 affects fertility in males or females.

Pregnancy Category C: Adequate reproduction studies have not been performed in animals to determine whether the drug affects fertility in males or females, has teratogenic potential, or has other adverse effects on the fetus. Thallous Chloride TI 201 should not be used in pregnant women except when benefits clearly outweigh the potential risks.

Ideally, examinations using radiopharmaceutical drug products, especially those selective in nature, in women of childbearing capability should be performed during the first few (approximately 10) days following the onset of menses.

Nursing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, as a general rule nursing should not be undertaken when a patient is administered radioactive material.

Pediatric Use: Safety and effectiveness in children below age 18 have not been established.

ADVERSE REACTIONS: A single adverse reaction to Thallous Chloride TI 201 product has been reported consisting of hypotension accompanied by pruritis and rash which responded to antihistamines and steroids within one hour.

HOW SUPPLIED: Thallous Chloride TI 201 is supplied as a sterile nonpyrogenic solution containing at calibration time 37 MBq (1 mCi)/mL. Thallium 201, 8 mCi/mL sodium chloride and 9 mCi/mL of benzyl alcohol. The pH is adjusted to between 4.5-6.5 with hydrochloric acid and/or sodium hydroxide. This product is supplied in a 244 MBq (6.6 mCi) size. Each package contains one vial.

The contents of the vial are radioactive. Adequate shielding and handling precautions must be maintained.

STORAGE: Store Thallous Chloride TI 201 at 18-25 C.
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Heidi Weissmann, MD
Associate Professor of Nuclear Medicine
and Radiology
Albert Einstein College of Medicine
Montefiore Hospital and Medical Center
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“Evaluation of the Patient with Suspected
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Divided into 3 sections, the guide opens with a general overview of nuclear medicine. A question-and-answer section follows, addressing such topics as safety, the benefits of nuclear medicine procedures, pre- and post-instructions, and testing of pregnant women and children. The third section explains some of the more commonly performed procedures such as bone, liver, lung, heart, and thyroid uptake scans.

16 pp; 5½ x 8½; in 2 colors;
25¢ per pamphlet; minimum order: 100 copies

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Prepared in collaboration with the U.S. Nuclear Regulatory Commission, this 8-page pamphlet answers patients’ questions about home care after receiving radioiodine treatment for thyroid conditions.

Easy-to-read language outlines important precautions patients can follow to help reduce radiation exposure to others. It also contains a checklist that physicians can review with their patients to determine which guidelines are appropriate for them and how they should be followed.

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Healthcare professionals in private practice, hospitals, and clinics will find that these pamphlets provide a brief, attractive, and inexpensive way to educate patients and their families about the importance and safety of nuclear medicine procedures.

TO ORDER: Single copies are available for review at $1.50 each. All prices include postage and handling. Prepayment required in U.S. funds drawn on U.S. banks only. Make checks payable to: The Society of Nuclear Medicine. Prices are in U.S. dollars and subject to change without notice.
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In the Imaging Laboratory

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The Society of Nuclear Medicine

35th ANNUAL MEETING

Tuesday, June 14–Friday, June 17, 1988
San Francisco, CA
Moscone Convention Center

Call for Abstracts for Scientific Program and Works-in-Progress

The 1988 Scientific Program Committee solicits the submission of abstracts from members and nonmembers of The Society of Nuclear Medicine for the 35th Annual Meeting in San Francisco. Abstracts accepted for the program will be published in a special supplement to the May issue of the *Journal of Nuclear Medicine*. Works-in-Progress will be published in a separate on-site show publication that will be distributed to all those who attend the meeting. Original contributions on any of the topics related to nuclear medicine will be considered, including:

- INSTRUMENTATION
- COMPUTERS AND DATA ANALYSIS
- IN VITRO RADIOASSAY
- RADIOPHARMACEUTICAL CHEMISTRY
- DOSIMETRY/RADIOBIOLOGY
- NUCLEAR MAGNETIC RESONANCE
- CLINICAL SCIENCE APPLICATIONS
  - Bone/Joint
  - Cardiovascular
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  - Pulmonary
  - and Immunology

Authors seeking publication for the full text of their papers are strongly encouraged to submit their work to the *JNM* for immediate review.

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The official abstract form for abstracts and Works-in-Progress may be obtained from the October 1987 issue of the *JNM* or by calling or writing:

The Society of Nuclear Medicine
Att: Abstracts
136 Madison Avenue, New York, NY 10016-6760
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Deadline for receipt of abstracts for the Scientific Program is Tuesday, January 12, 1988
Deadline for Works-in-Progress is Thursday, April 7, 1988

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Robert J. English, CNMT
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Published in June 1986, SPECT: A PRIMER, is already revised and in its second printing due to its wide reception from the nuclear medicine community. With this new book, nuclear medicine technologists can now expand their knowledge of the specialty to encompass the increasingly important modality of SPECT. The Primer answers the technologist's fundamental questions about SPECT, as both a text and as an extension of any manufacturer's operating manual.

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• Processing Techniques
• Clinical Applications

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Positions Available

Fellowship

THE NUCLEAR MEDICINE FELLOWSHIPS AT THE UNIVERSITY OF MICHIGAN MEDICAL CENTER. AMA-approved 1- and 2-year fellowships in nuclear medicine are offered to qualified physicians. The program leads to eligibility for Board certification in nuclear medicine or nuclear radiology. A fellow is educated in basic principles, clinical practice, and research. The division is comprehensively equipped and has programs in all aspects of nuclear medicine, including positron emission tomography, single photon tomography, labeled antibodies, and radionuclide therapy. For further information and applications for July 1988, contact: David E. Kuhl, MD, Nuclear Medicine, University of Michigan Hospital, 1500 E. Medical Center Dr., Ann Arbor, MI 48109-0028. A nondisciplinary, Affirmative Action Employer.

Physician

NUCLEAR MEDICINE PHYSICIAN. Available in 1988, full-time academic position. Department of Medicine, McMaster University and Service of Nuclear Medicine, Department of Medicine, Hamilton Civic Hospitals, a 1,030-bed affiliated hospital. Pre-requisites include eligibility for certification in nuclear medicine of the Royal College of Physicians and Surgeons (Canada), Ontario licensure and Canadian citizenship. Experience in internal medicine or cardiology is an asset. Position includes teaching at both undergraduate and postgraduate levels. Research opportunities are extensive in oncology and thromboembolism. Direct inquiries and resumes to: Dr. F. L. Isom, Nuclear Medicine, McMaster University and Service of Nuclear Medicine, Hamilton Civic Hospitals, 237 Barton St. East, Hamilton, Ontario, Canada, L8L 2X2. EOE.

Position available immediately. Board certified NUCLEAR PHYSICIAN desired, preferably with internal medicine background. Position includes strong university/academic teaching involvement in an expanding program. Nuclear Medicine Residency Program. Candidates need to be experienced in instrumentation application, particularly with computer applications, computer-aided image analysis with nuclear cardiology and SPECT techniques. Seeking a candidate with basic interest in clinical work and applied clinical research in nuclear medicine. Apply with resume to: Joseph A. Prezio, MD, Chairman and Program Director, SUNY/B Nuclear Medicine, VAMC, Building 5, 3495 Bayview Ave., Buffalo, NY 14215. An Equal Opportunity Employer.

NUCLEAR MEDICINE PHYSICIAN, Ontario, Canada. The Ottawa Civic Hospital requires a Nuclear Medicine Physician to join an academically active and clinically active Nuclear Medicine Division. The division also currently services the Children's Hospital of Eastern Ontario. The candidate must possess or be eligible for the FRCP(C) in nuclear medicine and eligible for licensing in the Province of Ontario. A teaching appointment at the University of Ottawa will accompany this position. In accordance with Canadian Immigration requirements, preference will be given to Canadian citizens and permanent residents of Canada. Interested candidates should submit their CV and the names of three references to: Dr. K. Y. Guilbault, Chief, Division of Nuclear Medicine, Ottawa Civic Hospital, Ottawa, Ontario K1Y 4E9, Canada. EOE.

Programmer/Analyst

PROGRAMMER/ANALYST for nuclear medicine. Mayo Clinic in Rochester, Minnesota, has an immediate opening for a programmer/analyst to work in the area of patient image documentation. Candidates should have a minimum of a Bachelors degree in computer science (or other science degree) and a minimum of 2 years scientific programming experience in Fortran or Pascal. Considerable knowledge of computer concepts and capabilities is necessary, and strong personal computer and operating system skills are required. Responsibilities include analysis, coding, software maintenance and local and remote support. Will be involved in the use of computers in the nuclear medicine department. Candidates should have a desire to work in a medical setting. Mayo also offers an attractive compensation package, including an outstanding personal security and benefits program. Interview and on-the-job training will be provided. Interested and qualified candidates should send a resume, including education, credentials, and salary requirements to: Larry Glason, Personnel Search, Mayo Clinic, 200 1st St. SW, Rochester, MN 55905. Mayo is an Equal Opportunity Employer.

Radiologist

Board certified or eligible DIAGNOSTIC RADIOLOGIST to be part of a three-person imaging center staff and outpatient specialty clinic in Tacoma, Washington. The staff's specialty center is associated with the larger radiology departments in hospitals operated by Group Health Cooperative of Puget Sound and Seattle Hospital, Washington. The practice consists of responsibility in ultrasound, nuclear medicine, mammography, CT, magnetic resonance, mammography, CT, and diagnostic x-ray. For further details please contact: Director of Medical Staff Personnel, Group Health Cooperative of Puget Sound, 521 Wall St., Seattle, WA 98121; (206)444-6550. EOE.

NUCLEAR RADIOLOGIST. Position available at the University of Rochester Medical Center, Strong Memorial Hospital, a 750-bed tertiary care facility. Position is in the Division of Nuclear Medicine, a division of the Department of Radiology. Individual must have successfully completed training for ABR certification with Special Competence in Nuclear Radiology or American Board of Nuclear Medicine. Research and teaching is a necessity in a strong academic division in Nuclear Medicine. Some nuclear equipment including SPECT and computed tomography is available. Send letters of inquiry to: Robert E. O'Mara, MD, Acting Chairman, Diagnostic Radiology, Box 645, University of Rochester Medical Center, Rochester, NY 14642. EEO/AA/M-F Employer.

Nuclear Medicine. Board certified RADIOLOGIST with fellowship training in nuclear medicine for position beginning July 1, 1988. Nuclear medicine is an advanced, active section with emphasis on cardiac nuclear medicine, state-of-the-art equipment, and 612-bed teaching hospital. Radiology group is an academically oriented private practice. Send inquiries to: Stanley Grossman, MD, Director, Nuclear Medicine Section, Dept. of Radiology, The Western Pennsylvania University Hospitals, 4800 Friendship Ave., Pittsburgh, PA 15224. EOE.

Residency

RESIDENCY IN NUCLEAR MEDICINE. A two-year ACGME-approved program offering broad clinical and basic science experience. Minimum requirement is Board eligibility in internal medicine, radiology, or pathology. One-year fellowships for radiologists also available. The program is an integrated program involving tertiary care, oncology, and research opportunities. Program also provides opportunity for exposure to MRI, CT, and ultrasound. An integrated program of the State University of New York at Buffalo School of Medicine. Positions available July 1, 1988. Contact: Joseph A. Prezio, MD, Chairman and Program Director, SUNY/B Nuclear Medicine, VAMC, Building 5, 3495 Bayview Ave., Buffalo, NY 14215. EOE.

NUCLEAR MEDICINE RESIDENCY-University of Arizona. Two-year, ACGME-approved program features individualized instruction in clinical and basic sciences at University Medical Center and VA Medical Center. Research on novel instrumentation is in progress under an NIH Program Project Grant, and clinical research opportunities are available. Tucson is a delightful desert city with year-round outdoor recreation. Prerequisite: at least 1 year of ACGME-approved postgraduate training. Contact: Dr. Howard W. Smollen, MD, Division of Nuclear Medicine, University Health Science Center, Tucson, AZ 85724. Applications will be reviewed beginning November 1, 1987. The University of Arizona is an EOE/AA/Affirmative Action/Equal Opportunity Employer.

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S E N I O R NUCLEAR MEDICINE TECHNOLOGIST. The University of California Davis Medical Center is seeking a highly motivated registered technologist with extensive nuclear cardiology, computer, and SPECT experience. Extensive active experience with nuclear medicine work and college level exposure in a health science field is preferred. Our dynamic division provides a full range of imaging and in vivo procedures with state-of-the-art Siemens, Picker and Philips equipment and equipment designed for the California environment. This position is in Richmond, California. Starting salary is $18,000. Good benefits package available. Send resume to: Dr. R. A. Vallieres, Nuclear Medicine, University of California, Davis Medical Center, One University Way, Box 4453, Sacramento, CA 95817. EOE/AA Employer.

Technologist

N U C L E A R MEDICINE TECHNOLOGISTS—Phoenix, Arizona. Good Samaritan Medical Center, a 750-bed teaching institution needs Nuclear Medicine Technologists for the imaging and nuclear cardiology sections of the department. We are a progressive nuclear medicine department with MDS and VA accreditation, and strong university affiliation. We have 6 General Electric ECT cameras, two Picker Dyna-Mo cameras, and a Siemens Tomoscan CT. We also have a Radiation D4 Bone Density Unit. Qualified applicants must have basic working, able to work independently, have good communication skills, and be registered or registry eligible. We offer an excellent benefits package and a competitive salary commensurate with experience. Please contact Personnel Dept., Good Samaritan Medical Center, 215

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E. McDowell Rd., Phoenix, AZ 85006 or contact Jenny McAuley (602)239-4747 for more information. EOE.

NUCLEAR MEDICINE TECHNOLOGIST. Florida license required. Certification through The American Registry of Radiologic Technologists or Nuclear Medicine Certification Board. One year experience or 1 year training in computer programming with FORTRAN IV. Duties include preparation and measurement of radioactive isotopes doses for diagnosis and therapy; measurement of glandular activity by uptake; imaging of all body organs and systems (cardiovascular, gastrointestinal, glandular, etc.). Perform radioimmunoassay, blood volume, red cell survival, etc. Candidate will program with FORTRAN IV to expand present nuclear medicine computer programs. Salary: $10.50 per hr. 8am to 5pm, 40 hr/week with $15.75 per hr overtime. Qualified applicants, send resume to: Job Service of Florida, 105 E. Broward Blvd., Ft. Lauderdale, FL 33301. Attn: Job Order #FL 5748388. EOE.

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By Philip J. Robbins

To provide up-to-date information about the most accurate procedures for ensuring quality control of radiopharmaceuticals, The Society of Nuclear Medicine has published Chromatography of Technetium-99m Radiopharmaceuticals — A Practical Guide.

This important manual offers readers a collection of miniaturized chromatographic methods for the rapid and precise determination of the radiochemical purity of commonly used Tc-99m radiopharmaceuticals.

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Edited by Wanda M. Hibbard, CNMT, and Sue P. Lance, CNMT

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Softcover format, 8½ x 11", 163 pp. Publication date: July 1984

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SNM MEMBERS

The Society of Nuclear Medicine recently sent two mailings of a manpower survey to selected institutions and individuals for the third and final mailing.

We are calling upon you for your help. If you receive a copy of this survey please fill it out and return it to The Society of Nuclear Medicine no later than November 23, 1987. The success of this survey depends on you. Thank you for your cooperation.

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The Society of Nuclear Medicine

35th ANNUAL MEETING

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Call for Scientific Exhibits
“One Picture Is Worth a Thousand Words”

The 1988 Scientific Exhibits Subcommittee welcomes the display of scientific exhibits at the 35th Annual Meeting in San Francisco, June 14–17, 1988. A visual discipline like nuclear medicine is particularly suited for information exchange via an exhibit format that allows the viewer time to study, criticize, and assimilate the material; exhibits can also supplement a presented paper and provide an alternate medium of expression for the author. Exhibits can be displayed on posterboard, viewbox or booth.

A complete educational program for technologists will be offered and technologists are encouraged to submit abstracts of their work for consideration.

Scientific awards, based on scientific merit, originality, appearance, and other criteria will be presented in several categories this year. The official abstract form may be obtained from the October 1987 JNM or by calling or writing:

The Society of Nuclear Medicine
Att: Abstracts
136 Madison Avenue
New York, NY 10016-6760
Tel: (212)889-0717

Abstracts must be submitted on the official form and received (not postmarked) no later than Monday, January 25, 1988

Circle Reader Service No. 188

The Journal of Nuclear Medicine
Compact Radioisotope Delivery System

CTI Group, Inc. has introduced the self-shielded RDS Model 112 Radioisotope Delivery System which is capable of automatically producing and delivering the major positron-emitting isotopes. The 11 MeV energy of the RDS is high enough to produce substantial quantities of positron emitters but low enough to offer practical shielding of neutron flux, according to the company. Four targets, carbon-11, nitrogen-13, oxygen-15, and fluorine-18, can be mounted to the RDS simultaneously, utilizing stripping foils for beam extraction instead of electrostatic extractors. Two targets can be irradiated concurrently via the computer-controlled insertion of two stripping foils into the beam path. Yields are: $^{11}$C 1.3 Ci (40 min. at 30A), $^{15}$N 0.3 Ci (10 min. at 40A), $^{18}$O 1.8 Ci (10 min. at 40 A), and $^{18}$F 1.2 Ci (10 min. at 20 A), according to CTI. Production of a specific radiochemical is accomplished by stepping through a set of menu selections on the terminal display, and the command language allows users to create their own synthesis procedures. A general-purpose chemical process control unit (CPCU) allows the automated routine synthesis of a variety of radiochemicals labeled with positron-emitting radioisotopes. For example, $^{18}$F[fluoride ion is used to prepare $^{18}$F]-2-deoxy-2-fluoro-D-glucose in radiochemical yields greater than 50%, according to the company. CTI Group, Inc., 810 Innovation Dr., Knoxville, TN 37932.

Circle Reader Service No. 101

Iodine-125 Sealed Source

Medi-Physics, Inc. has introduced an iodine-125 sealed source, produced by Cintichem, Inc., for use in single-photon absorptiometers. The sealed source, a double encapsulation of $^{125}$I, "provides the photon energy needed to measure bone mineral content in patients suspected of having osteoporosis," said Medi-Physics. Available in activities from 100 mCi to 1,000 mCi, it has a high level of purity, according to the company, with the level of $^{125}$I less than 0.002%. Medi-Physics said that it provides a complete sealed source service system, including a depleted sealed source return package and disposal of the depleted source. Cintichem, Inc., P.O. Box 816, Tuxedo, NY 10987.

Circle Reader Service No. 103

Pyrophosphate Reagent Kit

CIS-US, Inc. will market a pyrophosphate cold kit under the brand name An-Pyrotec. It contains 5 10-ml multidose reaction vials, each with 12.0-mg sodium phosphate and from 2.8 mg to 4.9 mg stannous chloride dihydrate. An-Pyrotec, which may be stored at room temperature both before and after reconstitution, is indicated for gated blood pool studies, myocardial infarct imaging, and bone imaging exams. Approximately 76% of the injected activity remains in the blood pool, according to the company. CIS-US, Inc., 1983 Marcus Ave., Lake Success, NY 11042-1016.

Circle Reader Service No. 104

60-cm Magnet for NMR Imaging and Spectroscopy In Vivo

Bruker Instruments, Inc. has introduced a large bore diameter (60 cm) magnet operating at a field strength of 2.35 tesla. The magnet is compatible with the Bruker Medspec/Biospec system, and is used for imaging and spectroscopic analysis of limbs, extremities, and animals. Other specifications include: 1'H frequency, 100 MHz; maximum subject diameter, 30 cm; height, 230 cm; length, 167 cm. Bruker Instruments, Inc., Manning Park, Billerica, MA 07932.

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New Products

Each description of the products below was condensed from information supplied by the manufacturer. The reviews are published as a service to the professionals working in the field of nuclear medicine and their inclusion herein does not in any way imply an endorsement by the Editorial Board of The Journal of Nuclear Medicine or by The Society of Nuclear Medicine.
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