Chinastandards.org

ICS 13.100
CCS C 57

WS

INDUSTRY STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

WS 262-2017

Replacing WS 262-2006

Specification for testing of quality control in ?-ray sources afterloading brachytherapy

(English Translation)

Issued on: April 10, 2017 **Implemented on: October 1, 2017**

Issued by: National Health and Family Planning Commission of the People's Republic of China

Preview: page 1 of 4 shown, 7 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/ws-262-2017

Chinastandards.org

Table of Contents

Preface
1 Scope
2 Terms and definitions
3 Quality control testing requirements
4 Quality control test items and methods
Appendix A (informative) Change in source ionization chamber reading response

Foreword

The third chapter of this standard is mandatory, the rest is recommended.

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard replaces WS 262-2006 "post-installed gamma source therapy for patient protection and quality control testing specification", and WS 262-2006 phase Than the main technical changes are as follows.

--- The standard name changed to "afterloading gamma source close treatment quality control testing norms";

--- Increase in the range of 60Co close source after the treatment equipment quality control;

--- Added and revised some terms and definitions;

--- Deleted Chapter 4 radiotherapy unit requirements; Chapter 5 patient radiological protection requirements; Chapter 6 after the installation of radiotherapy equipment to Seeking; Chapter 7 after the installation of radiotherapy operation requirements and other content;

--- Increased quality control testing requirements, including the quality control equipment testing and requirements such as content;

--- Increased quality control testing methods, including the cumulative positioning error of radioactive sources, the accuracy of source transmission in place, the source of residence time error, storage Source surface radiation leakage due to surrounding dose equivalent rate, source singly and randomly selected for step or fixed multi-channel repeatability, source alone and random selection of fixed multi-source multi-channel repeatability.

This standard proposed by the National Health Standards Committee Committee on Radiological Health standards.

Preview: page 2 of 4 shown, 7 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/ws-262-2017

This standard was drafted. Chinese Center for Disease Control and Prevention Radiation Protection and Nuclear Safety Medical Institute, Beijing Union Medical College Hospital, Sichuan Province disease pre Prevention and Control Center, Shanghai Center for Disease Control and Prevention.

1 Scope

This standard specifies the requirements and methods for quality control testing of post-loading gamma source brachytherapy.

This standard applies to 192Ir and 60Co brachytherapy source after the treatment of quality control testing. Other gamma source afterloading treatment reference implementation.

2 Terms and definitions

The following terms and definitions apply to this document.

Afterloading treatment afterloadingbrachytherapy Manually or remotely actuated transmission of one or more sealed radioactive sources from a reservoir to a pre-set position applicator and perform endovascular treatment in the body.

Applicator Treatment placed in the human cavity, pipe or tissue, for radioactive sources reside or exercise, and the implementation of special treatment equipment. Such as a needle, tube or Specially designed gadgets.

Repository storagecarrier Containers for one or more sources of radiation configured for after-treatment units.

Radiation source cumulative positioning error sourceaccumulativeerror the error between the actual treatment distance and the preset treatment distance of the last one after the loading equipment runs multiple stay points.

Air kerma can strength airkermastrength Free space in the source of the vertical axis from the source d air kerma rate and the distance d square product.

Source Appearance Activity when the sealed radioactive source of air than the kinetic energy of kerosene with nuclides generated by the same nuclide than the air release kinetic energy when the same, Degree as the kind of radionuclide source appearance activity.

3 Quality control testing requirements

3.1

pairs of newly installed gamma source afterloading treatment equipment should be acceptance testing; 192Ir source, 60Co source afterloading treatment equipment should be conducted once a year State detection; After the replacement or repair of after-treatment treatment equipment should be tested for stability; 192Ir source, 60Co source afterloading

Preview: page 3 of 4 shown, 7 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/ws-262-2017

Chinastandards.org

treatment equipment should be regularly Stability testing (gamma source afterloading treatment equipment testing items and technical requirements shall comply with the requirements of Table 1).

3.2

should be equipped with after-loading source activity measuring instrument (such as well-type ionization chamber) and radiation protection measuring instruments.

3.3

should be equipped with a thermometer, measuring range from 0 °C ~ 50 °C, the minimum sub-value of 0.5 °C, barometer, measuring range 50kPa ~ 106kPa, the smallest division value 0.1kPa.

Preview: page 4 of 4 shown, 7 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/ws-262-2017