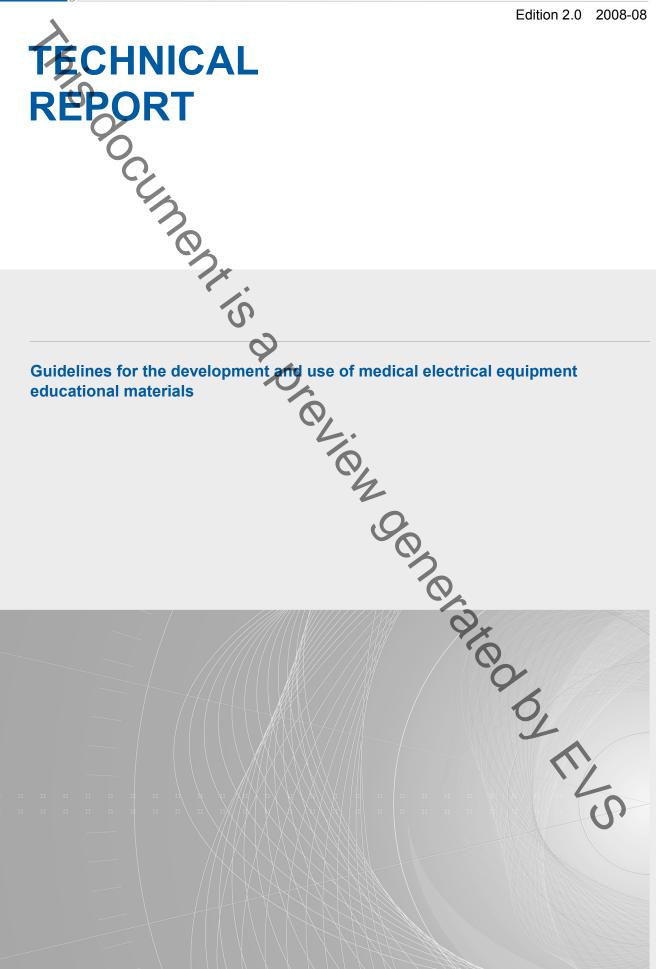


EC/TR 61258:2008(E)

# **IEC/TR 61258**

Edition 2.0 2008-08





### THIS PUBLICATION IS COPYRIGHT PROTECTED

#### Copyright © 2008 IEC, Geneva, Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either IEC or IEC's member National Committee in the country of the requester.

If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

IEC Central Office 3, rue de Varembé CH-1211 Geneva 20 Switzerland Email: inmail@ Web: www.iec.ch

#### About the IEC

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

#### About IEC publications

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigenda or an amendment might have been published.

Catalogue of IEC publications: <u>www.iec.ch/searchpub</u>

The IEC on-line Catalogue enables you to search by a variety of criteria (reference number, text, technical committee,...). It also gives information on projects, withdrawn and replaced publications.
IEC Just Published: <u>www.iec.ch/online\_news/justpub</u>

Stay up to date on all new IEC publications. Just Published details twice a month all new publications released. Available on-line and also by email.

Electropedia: <u>www.electropedia.org</u>

The world's leading online dictionary of electronic and electrical terms containing more than 20 000 terms and definitions in English and French, with equivalent terms in additional languages. Also known as the International Electrotechnical Vocabulary online.

Customer Service Centre: www.iec.ch/webstore/custserv If you wish to give us your feedback on this publication or need further assistance, please visit the Customer Service Centre FAQ or contact us:

Email: csc@iec.ch Tel.: +41 22 919 02 11 Fax: +41 22 919 03 00 

# **IEC/TR 61258**

Edition 2.0 2008-08



ICS 11.040

## CONTENTS

	\$			
FO	REWC	ORD	3	
INT	RODL	UCTION	5	
1	Scop	De	6	
2		ns and definitions		
3	General aspects			
4	Development and use of educational programs and materials			
4		Program goals		
	4.1			
	4.2	Division of tasks for information development		
		4.2.1 Manufacturers		
		4.2.3 Medical, paramedical and clinical engineering personnel		
		4.2.4 Educators		
		4.2.5 Standards-writing organizations		
	4.3	Data collection		
		4.3.1 Information to consider about equipment	11	
		4.3.2 Information to consider about the audience(s) for the EDUCATIONAL		
		MATERIALS	12	
	4.4	Selection of media and formats	12	
	4.5	Development and presentation of messages and materials		
	4.6	Validation of information content and presentation		
		4.6.1 Testing of EDUCATIONAL MATERIAL during product development		
		4.6.2 Testing of EDUCATIONAL MATERIAL during equipment use		
	4.7	Distribution and use		
_	4.8 Follow-up of EDUCATIONAL MATERIAL			
5	Patients and lay OPERATORS			
Bib	liograp	iphy	16	
		3		
		0,		
			,	
			•	
			~	
		iphy	0,	

#### INTERNATIONAL ELECTROTECHNICAL COMMISSION



#### GUIDELINES FOR THE DEVELOPMENT AND USE OF MEDICAL ELECTRICAL EQUIPMENT EDUCATIONAL MATERIALS

#### FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations fraising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with an IEC Publication.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

The main task of IEC technical committees is to prepare International Standards. However, a technical committee may propose the publication of a technical report when it has collected data of a different kind from that which is normally published as an International Standard, for example "state of the art".

IEC/TR 61258, which is a technical report, has been prepared by subcommittee 62A: Common aspects of electrical equipment used in medical practice, of IEC technical committee 62: Electrical equipment in medical practice.

This second edition cancels and replaces the first edition published in 1994. This edition constitutes a technical revision. This edition has been aligned with IEC 60601-1:2005 to include medical electrical systems within its scope. USABILITY ENGINEERING concepts from IEC 62366:2007 have also been added to this edition.

The text of this technical report is based on the following documents:

Enquiry draft	Report on voting
62A/615/DTR	62A/625/RVC

Full intomation on the voting for the approval of this technical report can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed, •
- withdrawn,
- replaced by a revised edition, or
- amended. •

A bilingual version of this publication may be issued at a later date.

on may be Which ich of the office of the off

#### INTRODUCTION

The prevention and alleviation of public health problems arising from the use of medical electrical equipment and medical electrical systems are major concerns for many regulatory agencies, standards organizations, professional associations of health care personnel, and manufacturers. Incorrect use of medical electrical equipment or medical electrical systems can result in death or injury to patients, to health care personnel operating medical electrical equipment or medical electrical systems, or consumers using such equipment.

Government agencies often rely on regulatory approaches to solve problems related to the way the equipment is manufactured, marked, and described in the ACCOMPANYING DOCUMENTS, but many problems arise from erroneous use of medical electrical equipment or a medical electrical system. Errors in using equipment are made for a variety of reasons, including lack of knowledge about its proper use, impediments or lack of incentives for appropriate use. For these user problems, non-regulatory strategies might be necessary. These require an analysis of the problems and the development of EDUCATIONAL MATERIALS and programs to address misunderstandings and bad habits that can cause the problems.

The development and use of materials and programs are an essential part of the health care ab mak Dreview Generated by the optimized by the optimize facilities' "quality system". For information on quality systems, see ISO 9001, ISO 9004 and ISO 13485.

### GUIDELINES FOR THE DEVELOPMENT AND USE OF MEDICAL ELECTRICAL EQUIPMENT EDUCATIONAL MATERIALS



IEC/TR 61258, which is a technical report, outlines a generic process for developing materials for education and training of OPERATORS of medical electrical equipment or a medical electrical system, hereafter referred to collectively as equipment. It can be used by standards organizations, manufacturers, health care facility managers, clinical engineers, physician and nurse educators, and others involved directly or indirectly in education and training of OPERATORS.

In particular, manufacturers might find this process useful in preparing the necessary markings, ACCOMPANYING DOCUMENTS and other EDUCATIONAL MATERIALS which will provide necessary information to OPERATORS of the equipment and encourage them to employ safe and effective practices.

This technical report is not intended to be used for regulatory purposes.

#### 2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

#### 2.1

#### ACCOMPANYING DOCUMENTS

documents accompanying medical electrical equipment, a medical electrical system, other equipment or an accessory and containing information for the responsible organization or OPERATOR, particularly regarding basic safety and essential performance

[IEC 60601-1:2005, definition 3.4, modified]

#### 2.2

#### EDUCATIONAL MATERIALS

means used to disseminate information for the purpose of training, instruction, and education of OPERATORS of equipment

#### 2.3

# INTENDED USE

use of a product, process or service in accordance with the specifications instructions and information provided by the manufacturer

[ISO 14971:2007, definition 2.5, modified]

#### 2.4

**OPERATOR** person handling equipment

[IEC 60601-1:2005, definition 3.73]