
**Health informatics — Telehealth
services — Quality planning
guidelines**

*Informatique de santé — Services de télésanté — Lignes directrices
pour la planification de la qualité*



This document is a preview generated by EBS



COPYRIGHT PROTECTED DOCUMENT

© ISO 2014

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

| | |
|--|-----------|
| Foreword | v |
| Introduction | vi |
| 1 Scope | 1 |
| 2 Normative references | 1 |
| 3 Terms and definitions | 1 |
| 3.1 Quality characteristics | 1 |
| 3.2 Actors | 3 |
| 3.3 Care | 5 |
| 3.4 Quality | 7 |
| 3.5 Risk | 8 |
| 3.6 Telehealth | 9 |
| 4 Conformance | 10 |
| 5 Quality and risk management | 10 |
| 5.1 Telehealth risk, safety and quality assessment | 10 |
| 5.2 Telehealth quality characteristics | 10 |
| 5.3 Management of quality characteristics | 11 |
| 5.4 Establishing the context for telehealth services | 12 |
| 5.5 Risk assessment — Identification | 12 |
| 5.6 Risk assessment — Analysis | 12 |
| 5.7 Risk assessment — Evaluation | 12 |
| 5.8 Risk treatment and quality | 13 |
| 6 Quality management of telehealth services | 13 |
| 6.1 Quality characteristics | 13 |
| 6.2 Services description | 13 |
| 6.3 Processes description | 14 |
| 6.4 Quality planning | 14 |
| 6.5 Risk assessment | 14 |
| 6.6 Risk treatment | 15 |
| 6.7 Service improvement | 15 |
| 6.8 Safety improvement | 15 |
| 7 Financial management | 15 |
| 7.1 Quality characteristics | 15 |
| 7.2 Sustainability | 16 |
| 7.3 Healthcare funds | 16 |
| 8 Service planning | 16 |
| 8.1 Quality characteristics | 16 |
| 8.2 Service design | 17 |
| 8.3 Service levels | 17 |
| 8.4 Duration of care | 17 |
| 9 Workforce planning | 17 |
| 9.1 Quality characteristics | 17 |
| 9.2 Workforce skills and training | 18 |
| 9.3 Consultation with workforce | 18 |

| | | |
|--|---|-----------|
| 10 | Healthcare planning | 18 |
| 10.1 | Quality characteristics | 18 |
| 10.2 | Healthcare processes | 18 |
| 10.3 | Healthcare plans | 19 |
| 10.4 | Healthcare continuity | 19 |
| 10.5 | Unavailable clinical guidelines and protocols | 19 |
| 10.6 | Adverse event management | 19 |
| 10.7 | Professional health record management | 20 |
| 11 | Responsibilities | 20 |
| 11.1 | Quality characteristics | 20 |
| 11.2 | Healthcare mandate | 20 |
| 11.3 | Informed consent | 21 |
| 11.4 | Care recipient preferences | 21 |
| 11.5 | Care recipients expenses | 22 |
| 11.6 | Appropriate healthcare services | 22 |
| 11.7 | Competence of care recipients | 22 |
| 11.8 | Execution of healthcare plan | 23 |
| 12 | Facilities management | 23 |
| 12.1 | Quality characteristics | 23 |
| 12.2 | Healthcare organization facilities | 23 |
| 12.3 | Care recipient facilities | 24 |
| 13 | Technology management | 24 |
| 13.1 | Quality characteristics | 24 |
| 13.2 | Service support | 25 |
| 13.3 | Service delivery | 25 |
| 13.4 | Infrastructure management | 25 |
| 13.5 | Deployment management | 26 |
| 13.6 | Operations management | 26 |
| 13.7 | Technical support | 27 |
| 14 | Information management | 27 |
| 14.1 | Quality characteristics | 27 |
| 14.2 | Privacy | 27 |
| 14.3 | Care recipient identity | 28 |
| 14.4 | Confidentiality of health records | 28 |
| 14.5 | Consultations, ordering and prescribing | 28 |
| 14.6 | Coordination and scheduling | 28 |
| 14.7 | Data quality | 29 |
| Annex A (informative) Examples of telehealth risk assessments | | 30 |
| Bibliography | | 32 |

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 215, *Health Informatics*.

Introduction

Aging populations are driving the demand for healthcare in many countries. Extended life expectancy will bring increased health issues for many people. Health systems are seeking to lower the demand for hospital beds by shortening the periods of hospitalization and providing more health care outside of the acute sector. The acute sector can also be geographically concentrated in capital cities which increases the potential demand for health services in primary care, community care settings, and preventative health care. Despite such measures, the demand for healthcare professionals and resources is likely to increase across all these care settings.

The use of information and communication technologies (ICT) is growing within the healthcare sector. The applications for ICT include devices and equipment that have embedded software. Originally, ICT was mainly used only within larger healthcare organizations, but has now spread throughout the healthcare sector. Applications and devices that use many types of information and communication technologies, including embedded software are now widely available for use in hospital clinics and the homes of patients or clients.

Healthcare organizations and healthcare supporting organizations can provide or support healthcare services using information and communications technologies (ICTs) to deliver health services and transmit health information over both long and short distances. The use of ICT in this way is known as telehealth or telemedicine services.

Although the use of ICT applications to deliver health care in community settings, in patient's homes, and connect healthcare professionals is seen as advantageous, there are additional risks to the quality of health care services when delivered at a distance using ICT. This Technical Specification provides guidelines on the development of quality plans to manage these risks. These guidelines are intended for use by healthcare organizations and healthcare supporting organizations.

A quality plan identifies the desired quality characteristics, related quality objectives, and quality procedures. This Technical Specification provides examples of generally applicable quality plans applicable to telehealth services.

Health informatics — Telehealth services — Quality planning guidelines

1 Scope

A growing number of initiatives in various countries around the world, most of them small-scale, are described as telehealth or telemedicine or m-health projects. It is not yet clear when the term telehealth or telemedicine should be used to describe such initiatives, because these terms can be described and interpreted in different ways in the absence of a unifying concept.

Telehealth is the use of information and communications technologies to deliver healthcare and transmit health information over both long and short distances. Telehealth is a form of care provision that extends the reach of care, reduces the need for care recipient or client travel and mobility, supports choice in healthcare service delivery, preventative care, individual self-care, and may also increase the efficiency of care. Currently telemedicine is seen as a providing a subset of a broader suite of telehealth services. Telehealth also includes ICT applications that support a wider set of activities including educational and administrative use.

This Technical Specification provides advice and recommendations on how to develop quality objectives and guidelines for telehealth services that use information and communications technologies (ICTs) to deliver healthcare over both long and short distances by using a *risk management process*. The following key requirements are considered when developing quality objectives and guidelines for telehealth services:

- management of telehealth quality processes by the healthcare organization;
- management of financial resources to support telehealth services;
- processes relating to people such as workforce planning, healthcare planning, and responsibilities;
- provision of infrastructure and facilities resources for telehealth services;
- management of information and technology resources used in telehealth services.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 31000:2009, *Risk management — Principles and guidelines*

3 Terms and definitions

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

3.1 Quality characteristics

3.1.1

accessibility

usability of a product, service, environment, or facility by people within the widest range of capabilities

EXAMPLE Accessibility of healthcare for recipients.

[SOURCE: Based on ISO 9241-20]