SLOVENSKI STANDARD
SIST-TP CEN ISO/TR 12296:2014

01-marec-2014

Ergonomija - Ročno premeščanje ljudi v zdravstvu in negi (ISO/TR 12296:2012)

Ergonomics - Manual handling of people in the healthcare sector (ISO/TR 12296:2012)

Ergonomie - Manuelles Bewegen von Personen im Bereich der Pflege (ISO/TR 12296:2012)

Ergonomie - Manutention manuelle des personnes dans le secteur de la santé (ISO/TR 12296:2012)

Ta slovenski standard je istoveten z: **CEN ISO/TR 12296:2013**

ICS:

11.020.10	Zdravstvene storitve na splošno	Health care services in general
13.180	Ergonomija	Ergonomics

SIST-TP CEN ISO/TR 12296:2014 **en,fr,de**

TECHNICAL REPORT

RAPPORT TECHNIQUE

TECHNISCHER BERICHT

CEN ISO/TR 12296

September 2013

ICS 13.180

English Version

Ergonomics - Manual handling of people in the healthcare sector (ISO/TR 12296:2012)

Ergonomie - Manutention manuelle des personnes dans le secteur de la santé (ISO/TR 12296:2012)

Ergonomie - Manuelles Bewegen von Personen im Bereich der Pflege (ISO/TR 12296:2012)

This Technical Report was approved by CEN on 19 August 2013. It has been drawn up by the Technical Committee CEN/TC 122.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Ref. No. CEN ISO/TR 12296:2013: E

Contents

Page

Foreword

The text of ISO/TR 12296:2012 has been prepared by Technical Committee ISO/TC 159 “Ergonomics” of the International Organization for Standardization (ISO) and has been taken over as CEN ISO/TR 12296:2013 by Technical Committee CEN/TC 122 “Ergonomics” the secretariat of which is held by DIN.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of ISO/TR 12296:2012 has been approved by CEN as CEN ISO/TR 12296:2013 without any modification.

TECHNICAL REPORT

ISO/TR 12296

First edition
2012-06-01

Ergonomics — Manual handling of people in the healthcare sector

Ergonomie — Manutention manuelle des personnes dans le secteur de la santé

Reference number
ISO/TR 12296:2012(E)

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

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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

In exceptional circumstances, when a technical committee has collected data of a different kind from that which is normally published as an International Standard ("state of the art", for example), it may decide by a simple majority vote of its participating members to publish a Technical Report. A Technical Report is entirely informative in nature and does not have to be reviewed until the data it provides are considered to be no longer valid or useful.

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.

ISO/TR 12296 was prepared by Technical Committee ISO/TC 159, *Ergonomics*, Subcommittee SC 3, *Anthropometry and biomechanics*.

Introduction

National and international statistics provide evidence that healthcare staff are subject to some of the highest risks of musculoskeletal disorders (particularly for the spine and shoulder), as compared with other jobs.

Manual patient handling often induces high loads on the musculoskeletal systems, in particular on the lower back. Manual patient handling ought to be avoided where possible[1)] or be performed in a low-risk manner.

Factors such as the number, capacity, experience and qualification of caregivers can interact with the following conditions to produce an increased risk of musculoskeletal disorders:

— number, type and condition of patients to be handled;

— awkward postures and force exertion;

— inadequacy (or absence) of equipment;

— restricted spaces where patients are handled;

— lack of education and training in caregivers' specific tasks.

An ergonomic approach can have a significant impact on reducing risk from manual patient handling.

A good analysis of work organization, including handling tasks and the above-mentioned risk determinants, is extremely important in reducing risks to caregivers.

The recommendations presented in this Technical Report allow identification of hazards, an estimation of the risk associated with manual patient handling and the application of solutions. They are based primarily on data integration from epidemiological and biomechanical approaches to manual (patient) handling and on the consensus of international experts in patient handling.

The assessment and control of risks associated with other aspects of manual handling can be found in ISO 11228-1, ISO 11228-2, ISO 11228-3 and ISO 11226.

1) As per European Council Directive 90/269/EEC on the minimum health and safety requirements for the manual handling of loads where there is a risk particularly of back injury to workers.

Ergonomics — Manual handling of people in the healthcare sector

1 Scope

This Technical Report provides guidance for assessing the problems and risks associated with manual patient handling in the healthcare sector, and for identifying and applying ergonomic strategies and solutions to those problems and risks.

Its main goals are

— to improve caregivers' working conditions by decreasing biomechanical overload risk, thus limiting work-related illness and injury, as well as the consequent costs and absenteeism, and

— to account for patients' care quality, safety, dignity and privacy as regards their needs, including specific personal care and hygiene.

It is intended for all users (or caregivers and workers) involved in healthcare manual handling and, in particular, healthcare managers and workers, occupational safety and health caregivers, producers of assistive devices and equipment, education and training supervisors, and designers of healthcare facilities.

Its recommendations are primarily applicable to the movement of people (adults and children) in the provision of healthcare services in purposely built or adapted buildings and environments. Some recommendations can also be applied to wider areas (e.g. home care, emergency care, voluntary caregivers, cadaver handling).

The recommendations for patient handling take into consideration work organization, type and number of patients to be handled, aids, spaces where patients are handled, as well as caregivers' education and awkward postures, but do not apply to object (movement, transfer, pushing and pulling) or animal handling. Task joint analysis in a daily shift involving patient handling, pulling and pushing or object handling and transport is not considered.

2 Terms, definitions and abbreviated terms

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

2.1
aids and equipment
assistive devices eliminating or reducing the caregiver's physical effort during handling of a non- or partially cooperating patient

2.2
caregiver
individual required by his or her job specification to perform manual patient handling activities

2.3
environment
all physical conditions of the area where patients have to be handled, including space, climate and surfaces

2.4
manual patient handling
activity requiring force to push, pull, lift, lower, transfer or in some way move or support a person or body part of a person with or without assistive devices

2.5
patient
individual who requires assistance to move

Note 1 to entry: Types of patients include

— totally non-cooperating patients (to be fully handled by a caregiver),

— partially cooperating patients (to be partially handled by a caregiver).

— fully cooperating patients.

Note 2 to entry: Missing willingness of the patient for cooperation may induce an increase in musculoskeletal load for the caregiver.

Note 3 to entry: Other types of patient classifications are mentioned in C.4.

Abbreviated terms

NC	totally non-cooperating patient
PC	partially cooperating patient
MSD	musculoskeletal disorders
MPH	manual patient handling
LBP	low-back or lower-back pain
PU	pressure ulcer

3 Recommendations

3.1 General aspects

A systematic review of patient handling literature shows that a strategy for risk assessment, application of engineering controls and management must be comprehensive (multifactor interventions) to be successful.

Consequently, a strategy for risk prevention based on analytical assessment of the risk itself, all of its potential determinants (organizational, structural and educational), and on some key aspects of risk management is outlined below (see Figure 1).

The strategy includes the use of managerial processes and systems for reducing causes and effects of musculoskeletal and other organizational losses from healthcare institutions.

The participatory approach is emphasized in all aspects especially in changing work practices, defining training needs, purchasing technology/equipment and designing work environments.

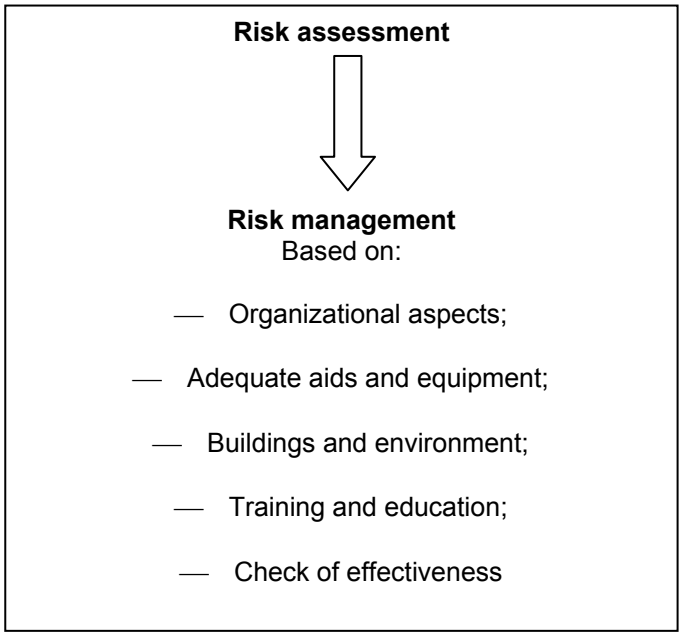

Figure 1 — Comprehensive strategy

The annexes present details of the main relevant aspects of the general strategy: risk assessment (Annex A); organizational aspects (Annex B); aids and equipment (Annex C); buildings and environment (Annex D); staff education and training (Annex E); effectiveness check (Annex F).

The following sections (3.2 and 3.3) describe the basic recommendations for this strategy.

3.2 Risk assessment

Risk assessment is one of the pillars of preventive strategies. Risk assessment consists of the following steps: hazard/problem identification, risk estimation/evaluation.

It is emphasized that for the purposes of this Technical Report, hazard identification and risk assessment are related not just at health risk identification but also in problem identification and problem solving.

A risk assessment is recommended when new equipment is introduced, organizational issues are modified (number of caregivers, number of non-cooperating patients), spaces are reorganized from an environmental viewpoint (rooms, services) and whenever other changes could affect risk characteristics, even if the previous condition was found to be acceptable.

For the purposes of this Technical Report, the risk assessment model shown in Figure 2 is used.