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Information technology — Cross-jurisdictional and societal aspects of implementation of biometric technologies — Use of biometrics for identity management in healthcare

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Foreword

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Introduction

The purpose of this document is to raise awareness of the potential role of biometrics in identity management for medical and healthcare use, to analyze a number of use cases, and to provide feedback from healthcare practitioners on the use of biometrics in the cases selected.

To date, there has been little use of biometrics in support of healthcare provision in Western Europe. However, the use of biometrics is already starting to spread in other regions. Trials conducted in certain developing countries have shown positive trends and provided useful experience. The use of biometrics presents potentially great advantages in the following situations:

— for patients in enabling consistency of treatment between visits to different places of care;

— for hospital management in the simplification of procedures for ensuring the correct identity of patients at various stages of treatment, and in managing medical and support staff and recording their interactions with individual patients;

— in support of medical and pharmaceutical research, for the reliable correlation of anonymous records collected over time and across different locations from the treatment of consenting patients, with the assurance that these records (and the use of biometrics) cannot in context reveal the patient's personal identity.

In all of these examples, the use of biometrics should be combined with proven security techniques, and data protection procedures.

A large new field for the use of biometrics in healthcare is now opening, with the use of smartphones and other mobile devices for people monitoring their own health and physical activity at home and abroad. Used securely, with proper privacy protection for personal data, this can enable remote interaction with medical and support staff, and provide access for individuals to their own medical records.

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Information technology — Cross-jurisdictional and societal aspects of implementation of biometric technologies — Use of biometrics for identity management in healthcare

1 Scope

This document describes potential applications of biometrics in identity management systems used for medical and healthcare purposes. It provides feedback from healthcare practitioners on the advantages, disadvantages, risks and priority of implementing certain use cases of healthcare with biometrics. For those use cases, information related to the selection of biometric type and associated measures related to security and privacy protection is provided to system designers.

The document concentrates on aspects of the subject which apply to the good management of healthcare services for patients who need monitoring, treatment and care in hospitals, clinics or at home, but can be incapacitated. It does not cover the measurement and interpretation of symptoms and biological data for the purposes of medical treatment or research.

The document is intended to be useful for the management of public and private healthcare systems anywhere in the world, and to commercial providers of identity management services and equipment. It is also potentially relevant to regulatory stakeholders addressing issues of privacy and legality, and the assessment of potential vulnerabilities in biometrics and identity management systems applied in the healthcare sector.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 2382-37, *Information technology — Vocabulary — Part 37: Biometrics*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 2382-37 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
identity management
processes and policies involved in managing the lifecycle and value, type and optional metadata of attributes in identities known in a particular domain

[SOURCE: ISO/IEC 24760-1:2019, 3.4.1, modified — Notes to entry have been removed.]

3.2
biometrics
automated recognition of individuals based on their behavioural and biological characteristics

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