



**GLOSSARY OF TERMS**

**TELEMEDICINE**

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**Introduction**

Telemedicine is an emerging field in healthcare with many unknowns. The COCIR Telemedicine Focus Group considers of utmost importance to develop a centralized glossary of terms to provide clear definitions and bring coherence to the various interpretations of the terms used in the field of telemedicine. The COCIR glossary is the foundation to clearly articulate strategic directions throughout the care cycle. The glossary includes a table outlining the level involvement of the various actors in the telehealth care cycle<sup>1</sup>. This glossary is a living document and will be updated on a regular basis.

**Part I: Telemedicine definitions**

**1. TELEMEDICINE<sup>2</sup>**

Telemedicine is the overarching definition spanning Telehealth, Telecare and Teledisciplines. Teledisciplines include - but is not limited to- Teleradiology, Telescreening etc.

Telemedicine can be defined as the delivery of healthcare services through the use of Information and Communication Technologies (ICT) in a situation where the actors are not at the same location. The actors can either be two healthcare professionals (e.g.

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<sup>1</sup> See Annex 1 page 4.

<sup>2</sup> This COCIR definition of telemedicine is in lign with the World Health Organisation and European Commission terminologies



teleradiology, telesurgery) or a health care professional and a patient (e.g. telemonitoring of chronically ill such as those with diabetes and heart conditions, telepsychiatry, etc).

Telemedicine includes all areas where medical or social data is being sent/exchanged between at least 2 remote locations, including both Caregiver-Patient/Citizen as well as Doc-to-Doc communication.

## 2.

### **TELEHEALTH (Includes REMOTE PATIENT MANAGEMENT or "RPMT")**

The term telehealth covers systems and services linking patients with care providers to assist in diagnosing, monitoring, management and empowerment of patients with long-term conditions (chronic patients).

Telehealth solutions use devices (interactive audio, visual and data communication) to remotely collect and send data to a monitoring station for interpretation and to support therapy management programs and to improve patients' knowledge and behaviour.

Telehealth solutions comprise systems and components (patient interfaces in hardware and software; sensors/ peripherals; operating software & applications intended for care provider usage; clinical content & intelligence; data transmission, storage and intelligent routing) as well as supporting services (system operation; logistics; financial services; etc.).

Input data sources are typically patients' self-assessments ("subjective data") as well as dedicated peripherals to measure vital parameters ("objective data").

Telehealth solutions address health care delivery, diagnosis, consultation and treatment as well as education / behavioural modifications and transfer of medical data.

## 3.

### **TELEMONITORING**

Telemonitoring designs systems and services using devices to remotely collect/send vital signs to a monitoring station for interpretation.

Telemonitoring is the remote exchange of physiological data between a patient at home and medical staff at hospital to assist in diagnosis and monitoring (this could include support for people with lung function problems, diabetes etc). It includes (amongst other things) a home unit to measure and monitor temperature, blood pressure and other vital signs for clinical review at a remote location (for example, a hospital site) using phone lines or wireless technology.

## 4.

### **TELECARE**

Telecare designs systems and services capable of social alert and social services. Telecare is used mainly to monitor the situation of people dependent on external help (i.e. elderly or disabled people) in the home setting.

## 5.

### **AMBIENT ASSISTED LIVING**

Systems, services and devices providing unobstrutive support for daily life based on the context and the situation of the assisted persons.



## 6.

### **TELECONSULTATION**

Teleconsultation is a medical act which is carried out in the presence of the patient who dialogues with the physician and/or the physicians consulting at distance as necessary.

## 7.

### **TELE-INTERVENTION**

Tele-intervention is a therapeutic medical act which is performed remotely by a physician on a patient, without or with the local presence of other healthcare professional(s) (e.g. telesurgery).

## 8.

### **TELE-ASSISTANCE**

Tele-assistance can be a medical act when a doctor remotely assists another doctor carrying out a medical or surgical act. The doctor can also assist another health professional who carries out an act of care or imaging, even within the framework of an emergency, to remotely assist a first-aid worker or any person providing medical assistance someone in danger while waiting for the arrival of a doctor.

## 8.

### **TELE-EXPERTISE**

Tele-expertise is a remote medical act between at least two healthcare professionals without the presence of the patient for decision purpose.

## 10.

### **TELEDISCIPLINES**

The term teledisciplines covers the various medical disciplines (e.g. radiology, dermatology, etc.) performed at a distance either between a doctor and a patient, or between two healthcare professionals through the use of ICT.



**Table: Actors involved in telemedicine**

Actors involved <i>R: Required o: optional</i>					Act			
Remote HCP	Active patient	Passive patient	HCP near patient	Expert	Prevention	Monitoring	Diagnostic	Therapy
R		R			Telehealth			
		R			Telecare			
R		R				Telemonitoring <i>(e.g. telecardiology)</i>		
R	R		O				Teleconsultation <i>(e.g. telepsychiatry)</i>	
R		R	R	O				Tele-assistance
R				R			Tele-expertise <i>(e.g. teleradiology)</i>	
R		R		O	Assisted Ambient Living			Tele-intervention <i>(e.g. telesurgery)</i>
		R						



## Part II: Teledisciplines definitions

### 1. **TELEDISCIPLINES**

The term "teledisciplines" is being introduced as an umbrella to describe various approaches to provide medical services over a distance with the help of ICT. It covers various medical disciplines performed at a distance between two healthcare professionals through the use of ICT. A "telediscipline" typically is restricted to a specific medical discipline. In contrast to a "telediscipline" the terms "telemedicine" or "telehealth" have a more general meaning.

The following is a non-final list of "teledisciplines"

### 2. **TELESCREENING**

Telescreening describes the use of first or second opinion through a remote connection in screening programmes. Either medical data are transferred to a remote specialist for primary evaluation, e.g. in the case that a specific medical qualification is required. Another scenario would involve a second opinion in order to increase the quality of the screening process. An example in the form of teleradiology would be the use of screening centres in mammography screening. The data transmitted during tele-screening can take any form from digital x-ray images to video files or ECG or laboratory data.

### 3. **TELEPATHOLOGY**

Telepathology enables remote staff pathologists, and third-party providers, to securely share images of anatomical pathology specimens to complete primary and non-primary diagnostic evaluation, and to also seek expert second opinions, and primary interpretation of urgent cases, from operating rooms.

### 4. **TELERADIOLOGY**

Teleradiology Information Systems (IS) enables secure remote evaluation of digital diagnostic studies (CT scans, MRIs and X-Rays). This technology enables both remote staff radiologists and third-party providers to complete primary and non primary diagnostic studies from any location. It encompasses hospital-to-home teleradiology for off-hours health care coverage i.e. remote working for radiologists being part of the hospital radiology department. It also covers outsourcing to other imaging centers or commercial teleradiology companies that provide outsourcing services for image interpretation (night and/or day reads).

### 5. **TELECARDIOLOGY**

Telecardiology covers the remote collection of cardiology data, mostly ECG data, and their transmission to a service centre. In the centre, the data are being evaluated by qualified staff who are giving advice to a patient or another healthcare provider. In emergencies, the service centre may also trigger rescue measures. Data transmission can either take place



continuously or at clearly defined points of time. Data collection can take place either at the patient's home or mobile.

## 6.

### **TELEDERMATOLOGY**

Teledermatology describes the transmission of visible light images (photos or videos) of disorders of the human skin for classification and diagnosis. It can take the form of primary as well as secondary diagnosis. Detection and classification of skin cancers is a typical example. Since dermatology is a highly specialised discipline and many patients will see a general practitioner first, the use of teledermatology offers great potential to shorten the diagnostic process and speed up the start of appropriate treatment.

## 7.

### **TELE-OPHTHALMOLOGY**

Tele-ophtalmology describes the remote diagnosis of medical conditions of the human eye. Similar to teledermatology, patients may not have immediate access to an ophthalmologist. Ophthalmology not only diagnoses typical diseases of the eye but can also generate useful information on other diseases, e.g. diabetes and cardiac conditions and related secondary symptoms. Data typically take the form of photos or videos.

## 8.

### **TELESURGERY**

Telesurgery describes the remote controlling of surgical apparatus, e.g. a surgical robot, by an experienced surgeon or the remote advice provided by an experienced surgeon to the surgeon on duty in the operating theatre. In the latter case, a live video connection and an audio connection between the two surgeons is sufficient. In the former case, a data link between the surgical apparatus on site and the remote manipulation tool is required.

## 9.

### **TELEPSYCHIATRY**

Telepsychiatry is a form of teleconsultation by a psychiatrist of a patient suffering from mental disorder.