

BEST PRACTICE MODEL FOR TELECONSULTATION IN MAXILLO-FACIAL SURGERY AND STOMATOLOGY

1. Background

The increasing of quality of treatment for patients with different diseases and traumas of maxillo-facial area is one of the most important problems in modern medicine. Due to telemedicine not only the doctor in charge or the staff of the local hospital are concerned with treatment of the patient, but the “collective intellect” of all the physicians of our planet.

2. Main goals

- equipment and communication
- technologies

3. Decisions

Telemedical work station (TWS)

Main TWS for maxillo-facial surgery and stomatology:

- PC, SVGA monitor, multimedia equipment, CDROM
- high quality scanner
- digital photcamera (min – 3,0 mpxl, optimum – 5,0 mpxl)
- printer
- modem
- sets of any equipment for diagnostic and treatment
- auxiliary equipment
- mobile GSM phone with camera and MMS technology

Secondary TWS for maxillo-facial surgery and stomatology:

- 1) Mobile 1:
 - mobile GSM phone with camera and MMS technology
- 2) Mobile 2:
 - PDA
 - digital camera for PDA
 - Wi-Fi card or mobile phone for GPRS

Communications' ways:

- direct Internet line (for big medical establishments)
- dial-up Internet line
- GPRS or Wi-Fi Internet line
- mobile phone+SMS+MMS line

Principal scheme for using of different kinds of TWSs is presented on fig.

Priority of different medical data's and technologies for teleconsultation in maxillo-facial surgery and stomatology

Inflammatory deaseses :

- data – locus morbi pictures (jpeg), ultrasonic diagnostics data (jpeg), digital x-rays (jpeg), CT (jpeg/dicom), short case history (important informations, tests etc only); the conclusions of adjacent experts;
- technology – e-mail+ICQ/MSN, SMS+MMS, web-application
+urgent call

Traumatic injuries (included combined traumas) :

- data - digital x-rays (jpeg), locus morbi pictures (jpeg), CT, SCT with 3D remodeling (jpeg/dicom), short case history (important informations, tests etc only), the conclusions of adjacent experts;
- technology – SMS+MMS, e-mail+ICQ/MSN, web-application
+ urgent call

Birth, posttraumatic and postoperatively defects and distortions :

- data - locus morbi pictures in 2-3 positions, dynamic investigation (jpeg), digital x-rays (jpeg), CT, SCT with 3D remodeling (jpeg/dicom), short case history (important informations, tests etc only); the conclusions of adjacent experts;
- technology – e-mail+ICQ/MSN, SMS+MMS, web-application

Tumor and tumor-like diseases :

- data - locus morbi pictures in 2-3 positions (jpeg), digital x-rays (jpeg), CT, MRI (jpeg/dicom), short case history (important informations, tests, pathogystological data etc only); the conclusions of adjacent experts;
- technology – e-mail+ICQ/MSN, SMS+MMS, web-application

Children's maxillo-facial surgery :

- data - locus morbi pictures in 2-3 positions (jpeg), digital x-rays (jpeg), CT (jpeg/dicom), short case history (important informations, tests, data of parents, transferred diseases, inoculations etc only); the conclusions of adjacent experts (pediatrist, endocrinologist, neurologist, orthodontist, logopedist etc);
- technology – e-mail+ICQ/MSN, SMS+MMS, web-application

Illnesses of a teeth and mucous membrane of an oral cavity :

- data - digital x-rays – local, orthopantomography (jpeg), locus morbi (jpeg), short case history (important informations, tests etc only); the conclusions of adjacent experts (stomatologist-therapist, stomatologist-orthopedist, orthodontist etc);
- technology – e-mail+ICQ/MSN, SMS+MMS, web-application

Non-emergency cases for teleconsultation (confirmation of treatment, determination of complication prevention methods, the patient doubting diagnosis, treatment and its results, complaint analysis, search for alternative solutions for clinical tasks) – web or special application, mailing lists, e-mail, second-opinion. In such cases it is necessary to pay special attention for confidentiality and anonymity of the medical information.

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