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Occupational medicine and toxicology

Clinical examination

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Examination of working population

Types of examination

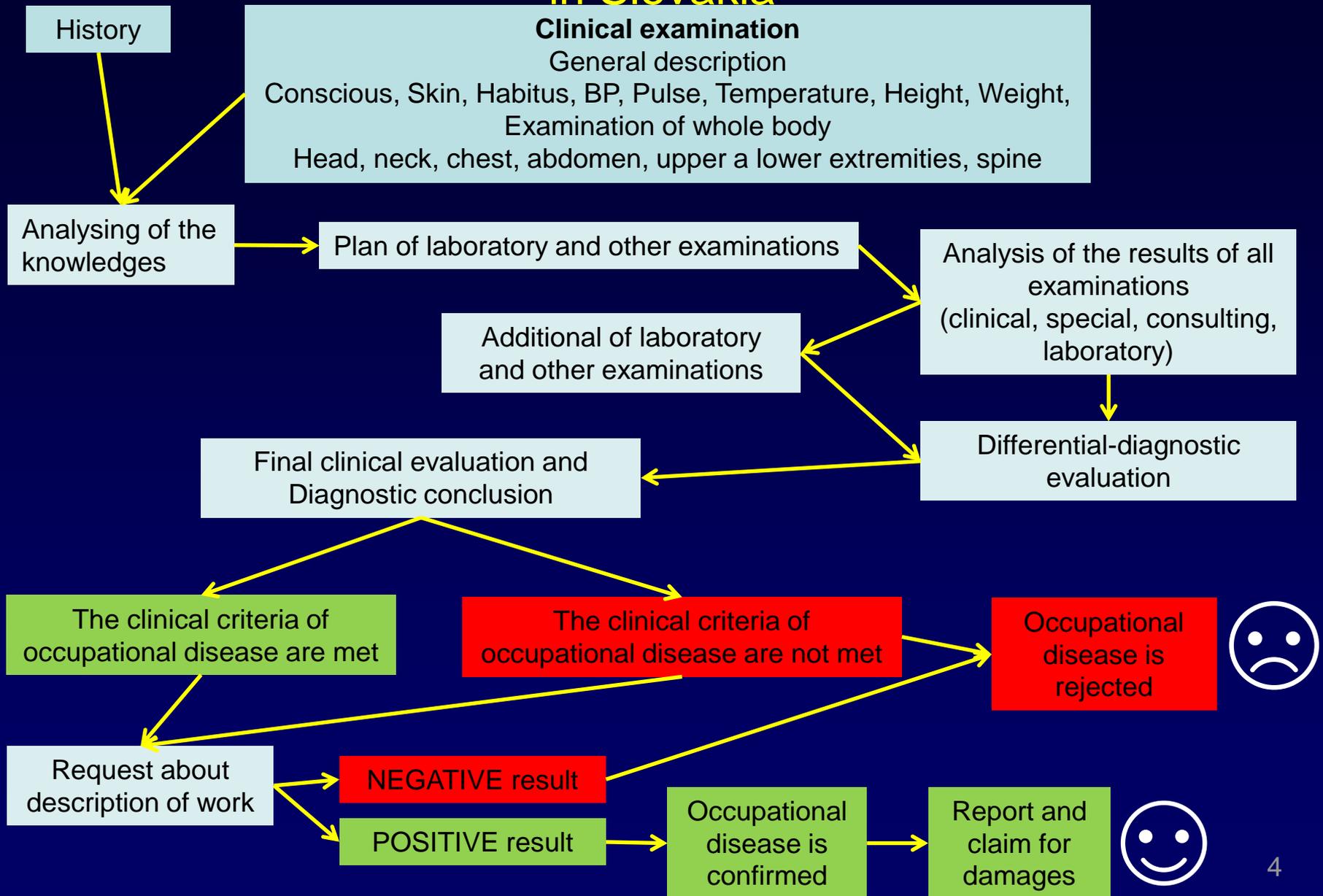
- **Preventive** — provide - Occupational health services
 - Initial examination
 - Periodic examination
 - Exit examination
 - Follow - up examination
- **Clinical** — provide — Departments or Clinics of occupational medicine and toxicology
 - Patients with suspected on occupational diseases
 - Outpatient clinical examination
 - Initial clinical examination upon admission to the hospital

System of clinical examination upon admission to the hospital

Standart parts of history

- Current complains
- Personal history
- **Occupational history**
- Family history
- Allergies
- Bad habits – smoking, alcohol, drugs
- Medical history
- Epidemiologic history – direct contacts with sick relatives, peoples
- Sickness absence - duration

System of clinical examination upon admission to the hospital in Slovakia



Occupational (work) history (WH) I.

- In clinical practice is often downgraded
- Bad WH can lead to wasted examinations, for patient painful or unacceptable examinations and serious mistakes
- **WH is basic for diagnostic ODs** - define next diagnostic examinations
- WH - Direct, Indirect
- Taking of work history
 - Chronological description of all employments after graduation,
 - Describe specific work activities, positions during the work ...
- Last work
 - Work place, work activities
 - Existence of risk factors
 - Description of psychological and sensory overload
 - Using of personal protective equipment

Occupational (work) history (WH) III.

- Data about existing professional disease or professional injuries in company where the patient work
- Time dependence between work activity and health problems
- Environmental data
- During the acute intoxication when the rescue is provided, is important
 - Obtain data about critical situation:
 - Where was the patient found
 - How long was in contaminated area (min. hours)
 - First aid – administration of antidote
 - Other information – injury, burn, bleeding, other diseases of patient

Occupational (work) history (WH)

What the patient does (produce)?

Where ?

With what ?

What kind of risk factors ?

How long ?

Diagnostic methods

- Basic is physical internal examination extended about
 - Special occupational – medical examinations
 - Selected methods from other medical specializations
- Biochemical a hematological examinations
 - Basic – preventive examinations
 - Advanced – complex examinations
- Toxicological examinations
 - Qualitative and quantitative detection of chemical substances and their metabolites, drugs, medicaments...
 - Biological exposure tests (BET)
- Genotoxicological examinations
 - Short term tests of mutagenity – exposition to carcinogens
 - Cytogenetic analysis chromosomal aberrations

Diagnostic methods

- Immunotoxicological examinations (immunologic laboratory)
 - Humoral immunity – immunoglobulins, complement
 - Cell immunity – examination of Le + dif.
 - Test blastic transformation of Ly – decrease value is sign for higher risk of viral, bacteria, mycosis a parasite diseases
- Inflammatory markers examination
 - FW (Erythrocytes Sedimentation Rate)
 - CRP
 - Haptoglobin (rhemathoid arthritis, collitis ulcerosa, nephritis)
 - Rheumatiod factor
 - Fibrinogen
 - Antigens anti specific tissues (anti thyroid antigen)

Diagnostic methods

- **Microbiological and parasitological examinations**
 - Diagnostic of professional infectious diseases
 - Preventive examinations - work with foodstuff, farming
 - Microscopic examinations
 - Cultivation examination
- **Dermatological examinations**
 - Source of mycotic diseases
 - Tests of hypersensitivity (allergic skin tests – standard and specific)
- **Pathological examinations**
 - Cytology – most often from sputum, liquid after BAL
 - Histological examinations – diagnostic atypical lungs fibroses, carcinomas
 - Identification of heavy metals inside tissues after biopsy

Diagnostic methods

- Imaging methods
 - USG
 - X – ray, CT, MRI
 - HRCT
 - Radioisotope examinations
 - Lungs functions, liver, kidney, bones
- Functional examinations
 - Spirometry
 - Spiroergometry
 - Rhinomanometry
 - Non specific and specific bronchoprovocation tests
 - Bronchodilatation tests