Giant geriatric problems:

- Osteoporosis
- Bedsores
- Incontinence
- Falls

Osteoporosis

Osteoporosis is a disease conditioned bone metabolic disorders of bone tissue, leading to a generalized or (less often) a localized reduction of bone mass per unit volume **(= reduction in bone mineral density - BMD)**, and consequently an increased susceptibility to bone fractures.

The definition of osteoporosis according to WHO

The World Health Organization (WHO) has established diagnostic criteria for osteoporosis and osteopenia, based on measurements of bone mineral density (**BMD**).

For post-menopausal women and men aged> = 65 years **osteoporosis is defined by BMD less than 2.5 SD** (standard deviation) below the peak bone mass in a young, healthy population. The term "**advanced osteoporosis**" is reserved for bone mass as in the case of osteoporosis, but with known fractures.

Diagnostic BMD ranges separating the "norm" of osteopenia and osteoporosis from established based on a study BMD of femoral neck or lumbar spine by DXA.

Only a study done such this method, in this pleace predicts the possibility of breaking !

Regardless of the BMD osteoporosis can be identified after finding a low-energy fracture.

Bedstore

- This is damage to the skin and underlying tissue deeper, which was created under the influence of oppression and / or lateral shear forces closing or destroying the capillaries.
- It is the result of hypoxia , ischemia and cell death.

Classes of bedsores - by Torrance

Grade I.

- fading redness.
- reactive hyperemia and redness in response to injury.
- under the influence of oppression finger fades, which means that the microcirculation is intact.

Grade II.

- **blanchable redness**
- **erythema persisting after the abolition of oppression indicates damage microcirculation, inflammation and swelling of the tissues.**
- **You may appear superficial edema, damage to the skin and blisters.**

Grade III.

- full thickness skin damage to the border of the underlying tissue.
- the wound edges are surrounded by edema and erythema.
- the bottom of the wound is filled with granulation tissue red or yellow masses decaying tissues.

Grade IV.

- also includes a tissue damage of the subcutaneous
- fat necrosis is caused by inflammation and thrombosis of small vessels.
- edge pressure sores is usually well demarcated but necrosis may also refer to the surrounding tissue.
- the bottom is sometimes also covered with brownish-black necrosis.

Grade IV.

- also includes a tissue damage of the subcutaneous
- fat necrosis is caused by inflammation and thrombosis of small vessels.
- edge pressure sores is usually well demarcated but necrosis may also refer to the surrounding tissue.
- the bottom is sometimes also covered with brownish-black necrosis

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Grade V

- advanced necrosis of the fascia exceeds muscles.
- damage can also affect the joints and bones
- formed cavity which can communicate with each other.
- in the wound are crumbling mass of tissue necrosis and black

Strategy TIME treat bedsores

Evaluation of the TIME cover

- "T" as the tissue (tissue)
  Examination and the characteristics of the wound
- "I" as inflammation (dermatitis), infection (infection)
  Control inflammation and microbiological assessment of wounds
- "M" as the moisture (humidity)
  The evaluation of exudate and moisture level of the wound surface
- "E" edge / epidermis (skin, abnormal edges).
  The evaluation of the edges of the ulcer and disorders
  Skin formation

T

Color system of wound assessment, information of the healing process:

- Wounds black - dry or soft black or brown necrosis filling the bottom of bedsores IV or V.
- Wounds yellow - color bedsores derived from necrotic masses mainly of fatty tissue; they are often infected wounds.
- Wounds red - represent the phase of granulation; granulation tissue is very delicate,
- Wounds pink – mean healing, changes in the epidermis

To significant clinical symptoms of chronic wound infection include:

- expanding erythema around the wound.
- increased local warming of the skin,
- change in the nature or severity of pain within ulcers,
- viscosity increase and intensity of exudate
- cellulitis, lymphangitis (edema)
- the sudden appearance of an unpleasant smell from the wound or its intensification,
- change the color of granulation tissue with dazzling red to brown, the emergence and growth of fibrin andgranulation tissue
- new lesions within the ongoing inflammatory process,
- other sudden changes in the appearance and characteristics of wounds

M

- The permissible amount of exudate is one that does not cause maceration of the surrounding tissue
- dynamics of exudate - a reduction in the amount of associated wound healing and reducing the inflammation proves the right choice of therapy
- change color, for example. accompanies wound infection, is usually associated with increasing the amount of exudate and odor intensification
- dressing - its observation complements the data on the aforementioned. characteristics of exudate, informs about the level of moisture in the wound and the accuracy of the chosen local therapy.

E

The implications may raise doubts as to further the healing process

- Inhibition epithalisation
- heaped, rolled or thickened edges of ulcers,
- edges undermined,
- hard and fibrotic,
- hyperkeratosis on the banks of the ulcer,
- macerated or inflamed.

The etiology of urinary incontinence transition

With shortcut DIALZNOK we are able to remember the eight reversible causes of incontinence that doctor examining each patient in the elderly can detect. The reasons for this include:

D - delirium,

I - urinary tract infection

A - atrophic inflamation urethra and vagina.

L - drugs,

Z - mental disorders, especially depression,

N - excessive volume of urine (eg. The reason? Hyperglycemia or heart failure)

O - restriction of movement,

K - fecal obstruction rectum.

The types of urinary incontinence

- Permament incontinence

If the exclusion of temporary causes of incontinence remains the leakage, it is assumed that the cause of this condition may be problems in the lower urinary tract.

Definitions

- **Overactive bladder is a medical condition which is characterized by urinary frequency and urgency to urinate, which may or may not be accompanied by urge urinary incontinence. These occur in conditions where there is no local pathology or metabolic factors that would cause them**

Definitions

- Urge incontinence is defined as involuntary leakage of urine due to involuntary urge to urinate. The symptoms mentioned : nocturia, involuntary loss of a large amount of urine is preceded by the thrust strong, urinary incontinence at rest. The factors that cause a feeling of pressure can be, among other things cold, running water or awareness of the distance from the toilet

Definitions

- Stress urinary incontinence is the most common form of urinary incontinence in women. The definition of the International Continence Society says: "Stress incontinence is objectively observed, involuntary loosing urine with the rise in intra-abdominal pressure, which is not accompanied by an uncontrollable contraction of the detrusor"

Overflow incontinence

It occurs in approximately 3 - 4% of women suffering from incontinence. The cause of this disease is impaired detrusor contractility, leading to over-filling of the bladder. Patients have a feeling that did not give urine to end. This may result in loosing small amounts of urine during the day and at night, often getting up at night to the toilet, feeling of pressure on the bladder and the inability to empty it.

Urinary incontinence due to other reasons is involuntary leakage of urine through the shunt, which bypasses functionally efficient mechanism urethra. A characteristic feature is the leakage of urine during the day and at night. The reason may be birth defects, such as ectopic ureter, and acquired for example following parturition or surgery.

Falls of the elderly

- The Fall - sudden, unintentional change of position of the body due to loss of balance, with no external forces during walking or performing any other activity as a result of which the victim is on the floor, ground or other low-lying area.
- Afterfall syndrome - the fear of another collapse causes the elderly person gives up activity

Risk assessment

- gathering intelligence on the completed falls, their circumstances
- analyze taken by the patient drugs
- assessment of gait and balance (Tinetti scale, short scale Tinetti test, "Get up and go")
- evaluation of sight and hearing of the patient
- Evaluation cardiology - heart rate, blood pressure

Dementia state - Definition

The psychopathological disorder caused by the brain, usually of a chronic or progressive, which is disrupted in such higher cortical function as memory, thinking, orientation, comprehension, numeracy, learning ability, language and evaluation.

According to ICD-10

Types of dementia

Degenerative diseases of the brain	Acquired brain disease	Other potentially reversible brain disease
▪Alzheimer's ▪Lewy bodies ▪Parkinson ▪Pick ▪Huntington's	▪vascular dementia ▪Traumatic brain injury ▪brain tumors ▪Subacute spongiform encephalopathy (Creutzfeld-Jakob Disease)	▪Metabolic disorders (hypothyroidism, Cushing's syndrome with-b; deficiency of thiamine, vitamin B12) ▪Toxic disorders (alcohol, drugs, drugs) ▪Dementia of infection (HIV, syphilis, encephalitis)

Diagnostics Continued

Mini-Mental State Exam

Score:

- 24-30 Norm
- 20-23 - mild dementia
- 10-19 - an average of severe dementia
- 1-9 - a significant dementia

Alzheimer's disease - etiology

Risk factors		
Certain	Probable	Other
▪Age ▪Downs Syndrome ▪load hereditary ▪ApoE4 genotype	▪female ▪Head damage ▪vascular factors	▪Depression ▪Alcohol ▪low education

Alzheimer's disease - characteristics

Neuropathology

- Generalized atrophy of gray matter
- Changes filamentary neurons
- The presence of senile plaques containing beta-amyloid in the gray

Clinic

- Loss of cognitive function (amnesia, aphasia, apraxia, agnosia)
- Psychiatric disorders (delusions, mood disorders, personality changes)
- Difficulties in everyday life

The disease diffuse Lewy body disease

- The second most common cause of dementia
- Lewy bodies - cytoplasmic inclusions in neurons built with alpha-synuclein
- In 50% of patients, hypersensitivity to neuroleptics

Clinic

- faster than in the course of Alzheimer's disease.
- "Undulating" cognitive
- Neurological symptoms (muscle stiffness, abnormal gait, tremor)
- Frequent hallucinations, delusions

Vascular dementia

- Multi-infarct dementia - the presence of large outbreaks ischemic strokes or sinus
- Dementia caused by individual infarcts - ex.the hippocampus
- Subcortical dementia - damage to the white matter sclerosis

Vascular dementia - risk factors

- Age
- Gender (men)
- Low level of education
- Hypertension
- Smoking
- Diabetes
- hyperlipidemia
- Myocardial infarction, stroke or TIA

Treatment

A. The treatment of cognitive disorders:

- Acetylcholinesterase inhibitors: rivastigmine (Exelon), donepezil (Aricept, Yasnal)
- NMDA receptor antagonist -memantyna (Axura, Ebixa)

Treatment of depressive disorders

- Serotonin reuptake inhibitors (citalopram, sertraline)

B. Treatment of behavioral disorders, psychopathological symptoms, hallucinations, delusions

- Risperidone 1-2mg / d; Olanzapine 5-10 mg / d
- The stimulation also Alprazolam 0.5-1mg / d

extrapyramidal symptoms- levodopa

COG - ASSESSMENT OF FUNCTIONAL

- The scale of assessment of vital signs - scale Katz (ADL - activities of daily living). A low score indicates inability to function independently
- Traveler complex activities of daily living Lawton Scale (IADL - instrumental activities of daily living). Evaluates the ability of the basic functioning in the modern environment, it allows you to approximate Objectifying needs of the patient assistance / care
- Evaluating the effectiveness of a patient by Barthel - required by the National Health Fund to qualify for institutional care and care long term(40 points - border funding by the National Health Fund)

COG - ASSESSMENT OF PHYSICAL

- The scales commonly used in medicine - eg. The scale of congestive heart failure NYHA Canadian Coronary Artery Disease Assessment Scale, APACHE, etc.
- Rating Scale Balance and Gait - Tinetti
- Falls Risk Assessment - Scale of Tinetti - Cumulative assessment of the function of the nervous system and bone and joint. Low Rating - points to the need to equip the person's lit up at night floors, handrails beside the bed, in the bathroom, walker, etc.

c.d.

- The risk of bedsores - Norton scale - targeting preventive measures
- Assessment of nutritional status (MNA - mini nutritional assesment)
- Assessment of operational risk - groups of patients operating choice for indications of life and provided for the palliative treatment

COG - ASSESSMENT OF MENTAL

- Scales quantitatively evaluating the cognitive (mental) - Folsteina scale (MMSE - Mini Mental State Examination) - examines the most important aspects of mental performance - orientation and memory, counting and concentration of attention, memory fresh and language functions
- Quick Test Mental Fitness by Hodgkinson
- Hachinski scale - to modulate vascular dementia and Alzheimer's disease
- Scales assessing emotional state (affect, anxiety and depression), Geriatric Depression Rating Scale Yesavage'a, Hamilton Depression Scale