

ERASMUS + KA2 PROJECT: “Strengthening Capacities for Higher Education of Pain Medicine in Western Balkan Countries - HEPMP”



Koliko znamo o bolu/ 09.06.2021.

Project number: 585927-EPP-1-2017-1-RS-EPPKA2-CBHE-JP (2017 – 3109 / 001 – 001)

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Ciljevi projekta HEPMP (programske zemlje)

- Pomoć u analizi trenutne situacije vezano za medicinu bola u zemljama Zapadnog Balkana.
- Definisanje mogućih promjena koje bi poboljšale ili uvele kurikulum medicine boli u dodiplomskom i postdiplomskom obrazovanju.
- Obuka predavača iz zemalja Zapadnog Balkana u zemljama Evropske unije.

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Ciljevi projekta HEPMP (partnerske zemlje)

- Jačanje kapaciteta visokog obrazovanja u oblasti medicine bola u zemljama Zapadnog Balkana
- Edukacija zdravstvenih radnika u oblasti medicine bola
- Usavršavanje kurikuluma subspecijalizacije Medicine bola na postdiplomskim studijama, kao i razvoj obrazovnog programa iz oblasti medicine bola na osnovnim studijama Medicinskog fakulteta
- Uspostavljanje akademske mreže i poboljšanje stručne saradnje uz pomoć savremenih tehnologija (internet, telemedicina, itd.)

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Konzorcijum projekta čine predstavnici devet ustanova

- Medicinski fakultet Univerziteta u Beogradu
- Medicinski fakultet Univerziteta u Kragujevcu
- KBC «Dr Dragiša Mišović-Dedinje»
- Medicinski fakultet Univerziteta u Podgorici
- ***Medicinski fakultet Univerziteta u Tuzli***
- Medicinski fakultet Univerziteta u Banja Luci
- Medicinski fakultet Univerziteta u Rijeci
- Medicinski fakultet Univerziteta u Firenci
- Medicinski fakultet Univerziteta u Ljubljani.

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<https://www.facebook.com/HEPMP-113918870024687>

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Istorijat medicine bola

Prof.dr.sc. Jasmina Smajić

Koliko znamo o bolu/ 09.06.2021. god.

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Uvod

Bol može biti istovremeno korisna i strašna.

IASP (International Association for the Study of Pain)

– bol je neugodan osjećaj ili osjećajni doživljaj povezan sa stvarnim ili potencijalnim oštećenjem tkiva ili opisan u vrijeme takvog oštećenja



Koncept boli

- istražuje se i proučava još od trenutka kad je čovjek prvi put iskusio bol
- sumerski glineni zapisi – 5000 pne





HEROFILUS



ERASISTRATUS



GALENO

Descartes-ov model bola

- 1644. - bol poremećaj koji se prenosi duž živčanih vlakana dok poremećaj ne dospije u mozak.
- detaljno objasnio somatosenzorne puteve kod čovjeka.
- nervi kao šuplje cijevi (tubula) koje prenose i osjetne i motoričke informacije.

Descartes-ov model bola

Pain pathways Rene Descartes

"Particles of heat activate a spot of skin attached by a fine thread to a valve in the brain...

this opens the valve allowing animal spirits to flow from a cavity into the muscles causing them to flinch, and turn the head and eyes toward the affected body part, also moving the hand and turn the body protectively."



Patofiziologija bola kroz istoriju

- Aristotel - bol i zadovoljstvo doživljavao ne kao senzacije već kao osjećaje ("strasti duše")
 - kardiocentrične teorije
- Hipokrat - izričito smatrao da je mozak izvor "naših boli, tuge, tjeskobe i suze."
 - encefalocentrične teorije



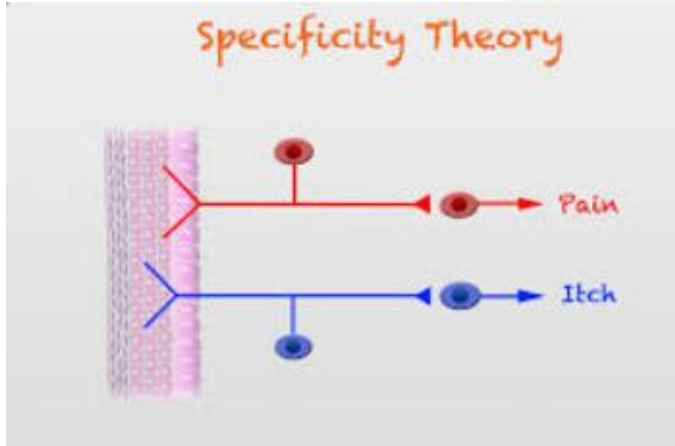
Bol kao Božija kazna

Bol kao test ili pokus na osobi



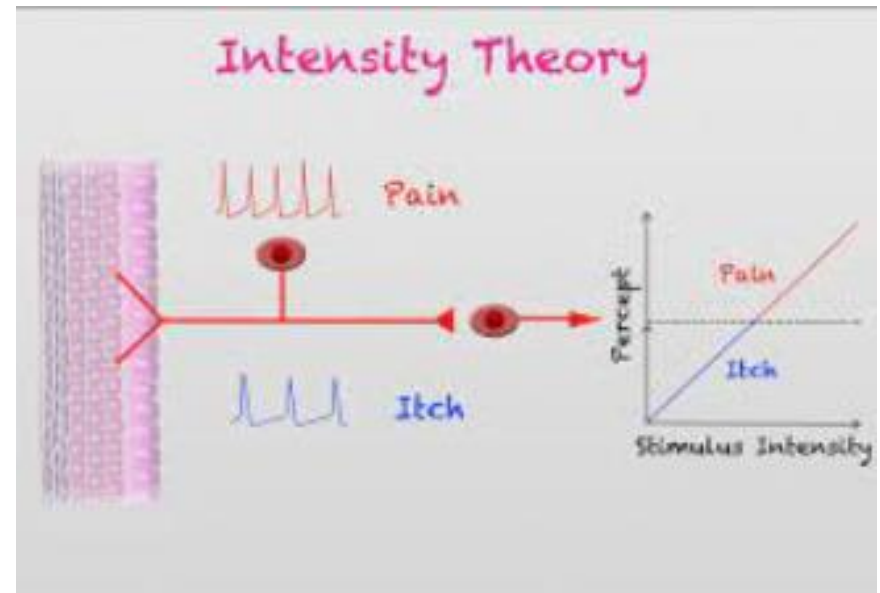
Teorija specifičnosti

- Bol kao "specifična senzacija s vlastitim osjetnim aparatom neovisnim o dodiru i drugim osjetilima".



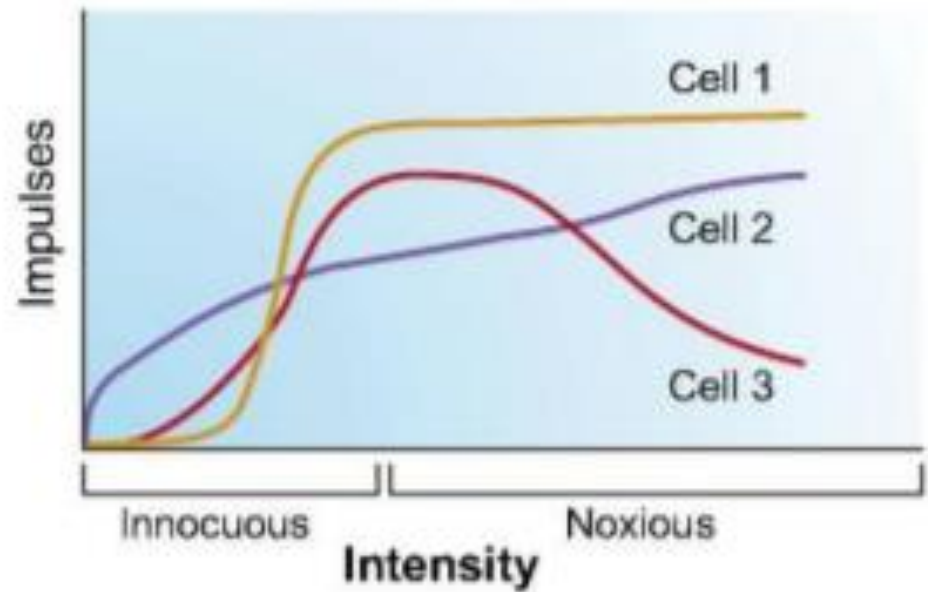
Teorija intenziteta

- nije zamišljala bol kao jedinstveni senzorni modalitet, već emocionalno stanje proizvedeno jačim od normalnih podražaja poput jakog svjetla, pritiska ili temperature

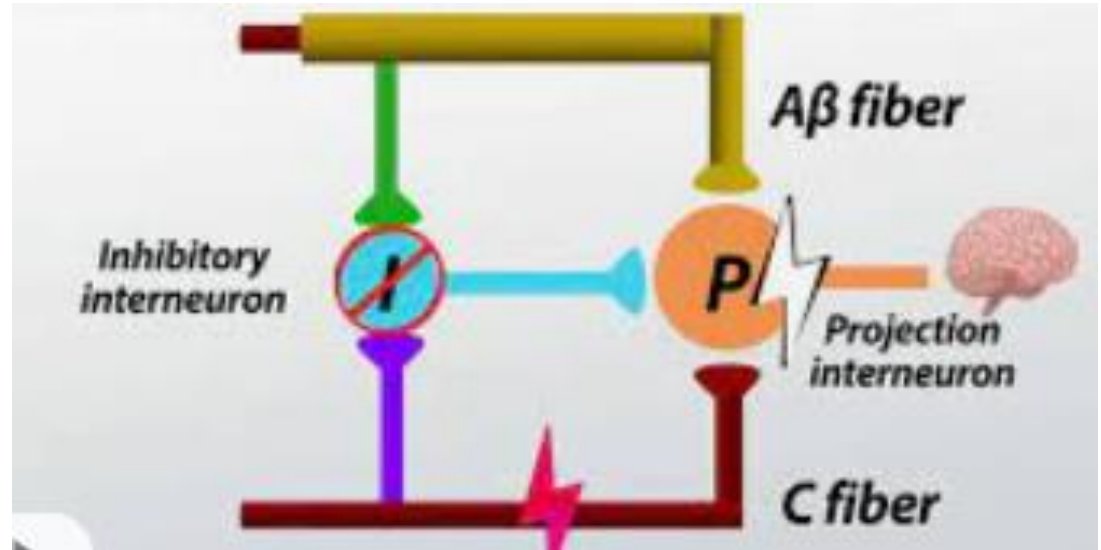


Teorija bolnih obrazaca

Svaki somatosenzorni modalitet pojavljuje se prema specifičnom, određenom obrascu, kao posljedica podraženog neurona



Teorija “kontrolne vrata”



- Kičmena moždina sadrži neurološka "vrata" koja ili blokiraju signale boli ili im dopuštaju da nastave dalje do mozga



Tretman bola kroz istoriju

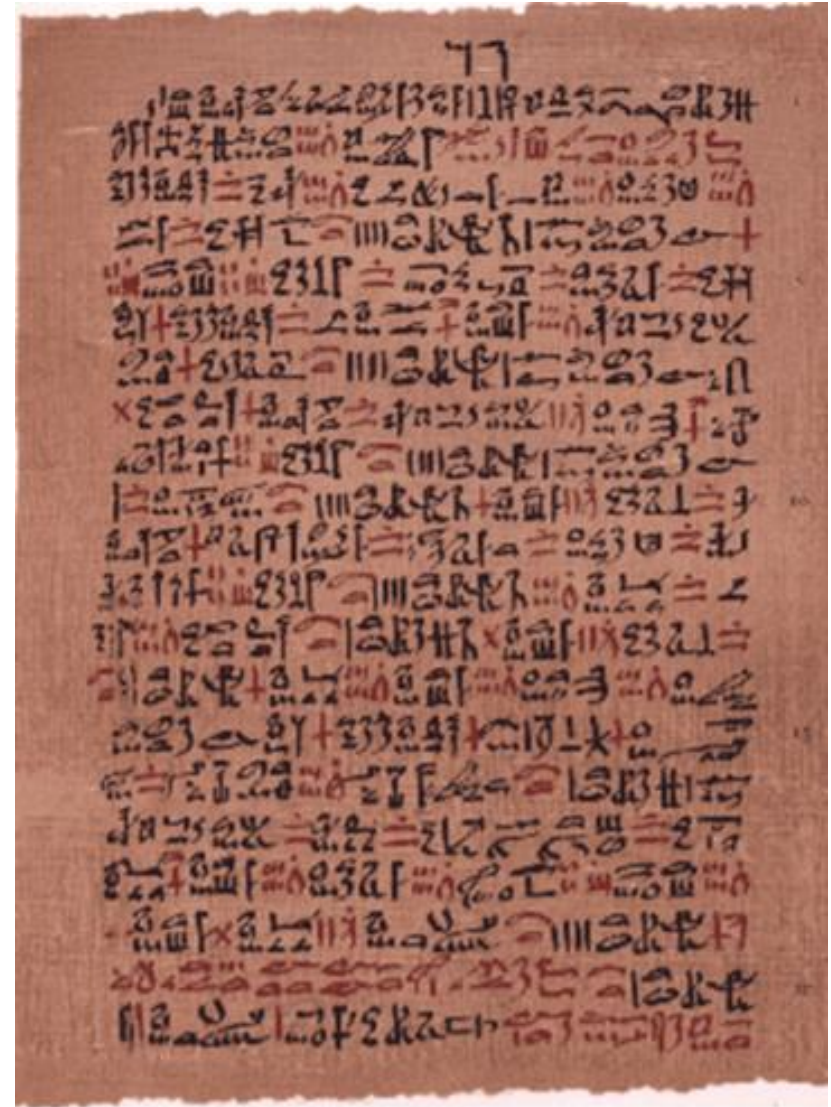
- Magija i ritual
- Primitivni čovjek – vidljiva bol
- Plašenje bolnih vragova
- Cijevi za upijanje bolova
- Trepanacija

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Tretman bola kroz istoriju

- Prvi dokumentirani opis migrenske glavobolje
- Predlaže trepanaciju





Kora vrbe kao lijek

- Prije više od 3.500 godina, drevni Sumerani i Egipćani koristili su koru vrbe kao tradicionalni lijek za ublažavanje boli
- Hipokrat
- Plinije Stariji

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Tretman bola u srednjem vijeku

- Polifarmacija
- Theriac - grčki theriake, latinski theriaca, francuski thériaque
- Mirisno bilje
- Minerali



Korak naprijed...

- 1846. godine anestezija za operaciju
- Kraljica Viktorija – bezbolan porođaj



Replika Mortonovog inhalatora, korištena u njegovoj prvoj javnoj demonstraciji (oktobar 1846). Ljubaznošću Udruge Centar za baštinu anestetičara.



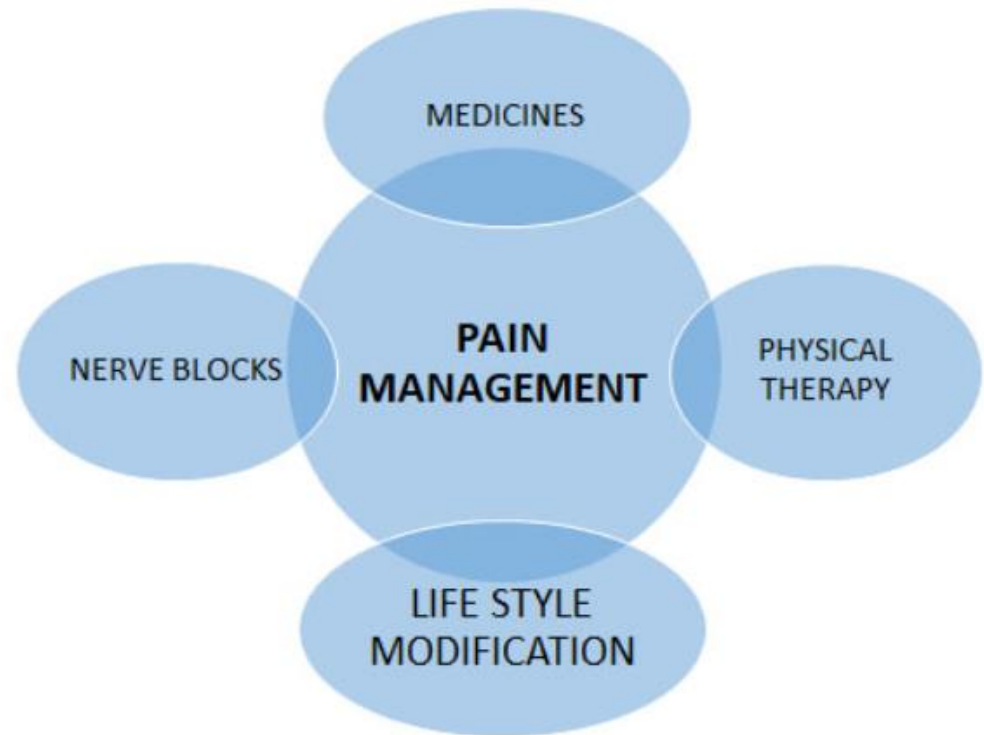
Morfij

- aktivni sastojak opijuma
- Papaver somniferum
- Laudanum
- 1804. Friedrich Sertürner – morhium
- Opiofobija

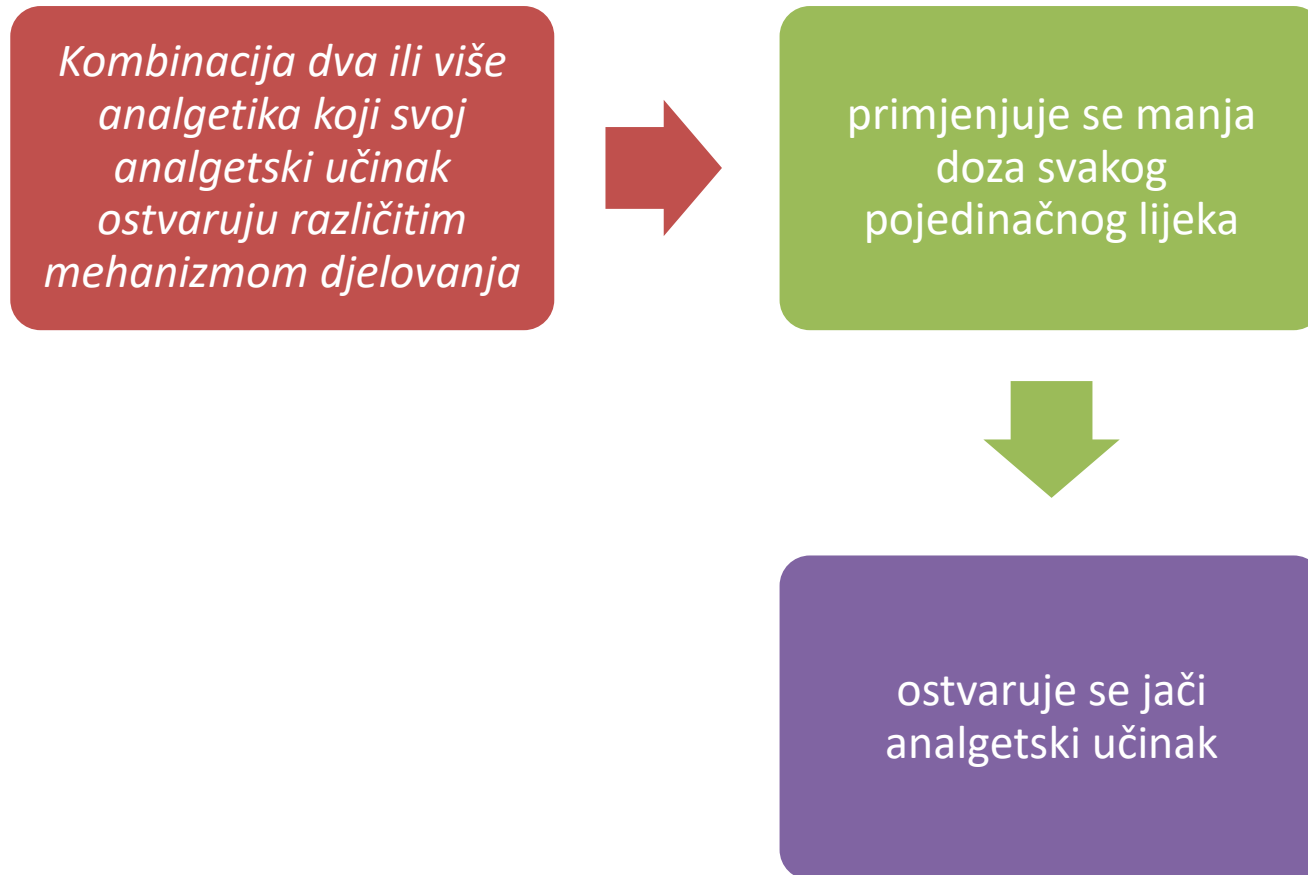
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Savremeni koncept analgezije

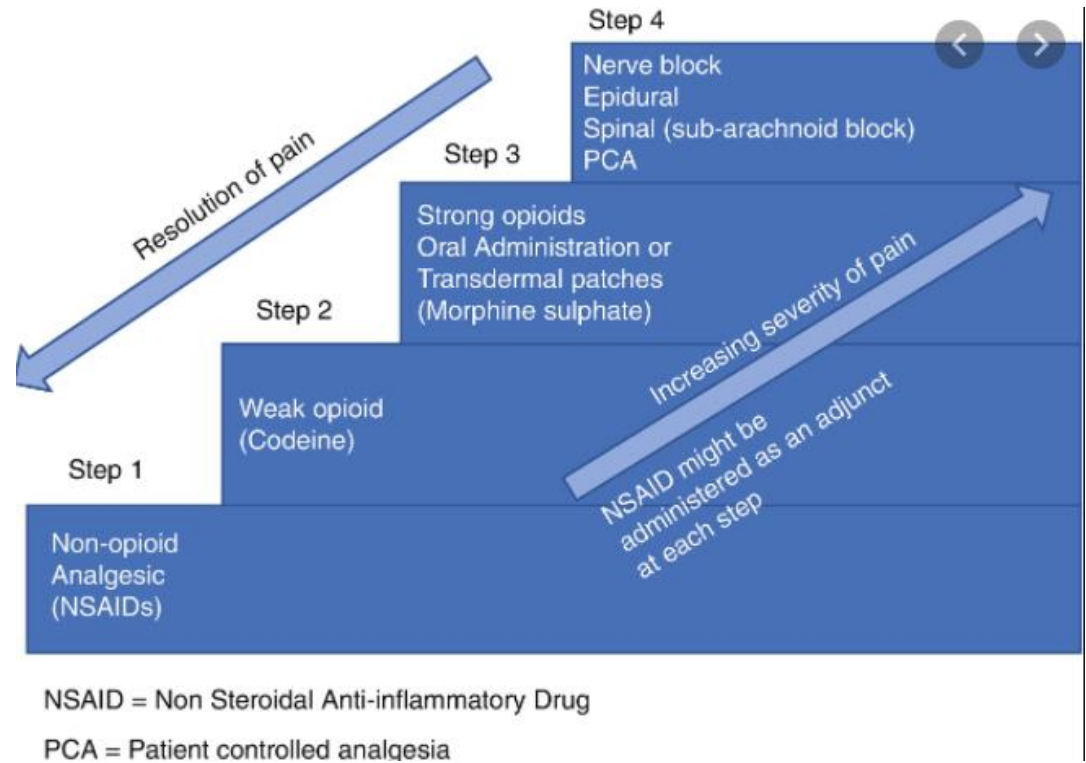
- farmakološko i/ili nefarmakološko (hirurško, specifično onkološko liječenje, psihosocijalna potpora)
- neinvazivno, minimalno invazivno ili invazivno



Multimodalna analgezija

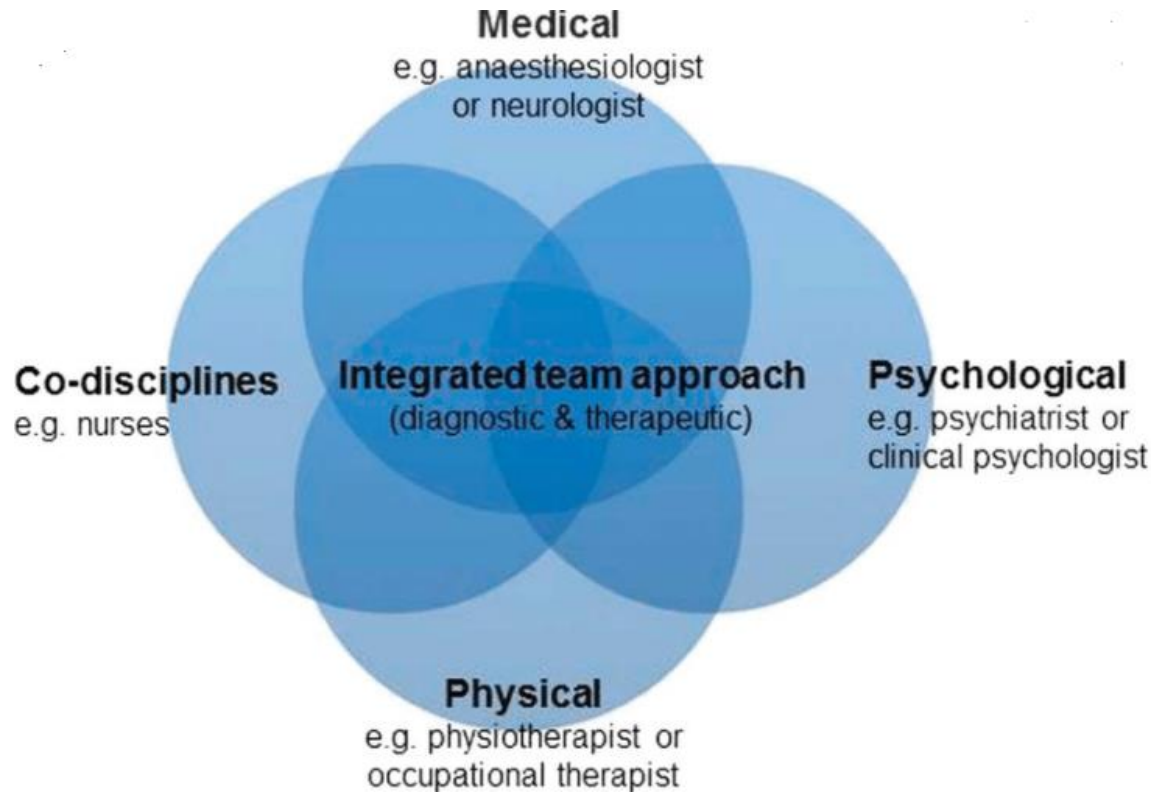


Analgetska ljestvica SZO



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Multidisciplinarni pristup



Zaključci

- nekoliko teorija
- nekoliko terapijskih modaliteta
- značajan napredak u našem poznavanju osnovnih mehanizama
- održavanje i širenje istraživačkih programa
- obrazovanje i osposobljavanje zdravstvenih radnika
- informisanje javnosti

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