

# Mis tunne on koostajal kui ravijuhend saab valmis?

Kaire Pakkonen

Pärnu Haigla

# Enne esimest ravijuhendit: kõhklused, kahtlused, segadus, teadmatus

- Kas meil on selliseid ravijuhendeid üldse vaja?

## Patsiendijuhendi testimine sihtrühmas:

- *Osalejad jagasid kahtlust, kas meditsiinitöötajatel endal on juhendid, kuidas valutava patsiendiga toimetada?*

*Nende töö jätab soovida....*



2013-2016

Perioperatiivne  
ägeda valu  
käsitus

Sekretariaadi juht



2017-2019

Täiskasvanute  
unehäirete  
diagnostika

Sekretariaadi liige



2019-2021

Palliatiivne  
ravi I ja II osa

Sekretariaadi juht



2022-...

Perioperatiivne  
ägeda valu  
käsitus  
uuendamine

Töörühma juht

# Algus



- Segadus, ahastus, väsimus, jõuetus...
  - Appi, ma ei saa aru mida ma tegema pean!
    - Tõendusmaterjali otsing
    - Teadusuuringute lugemine, nendest arusaamine
  - Seda kõike on liiga palju



A screenshot of the PubMed website showing search results for 'acute pain management'. The search results list several articles, including 'Pain management in photopilation' by Amionetti JM, 'Ultrasound-guided Greater Auricular Nerve Block for Emergencies' by Flores S, 'Abscess Drainage' by Flores S, 'Torsional osteotomy' by Strecker W, 'Treatment for superficial infections' by Di Nisio M, 'Markov Chain evaluation of acute postoperative pain transition states' by Tighe PJ, and 'Brown Tumor of the Thoracic Spine: First Manifestation of Primary Hyperparathyroidism' by Sonmez E. A dialog box titled 'Kirjete valimine' (Select articles) is open over the first article, showing a list of search results with checkboxes. The dialog box has buttons for 'Select All', 'Deselect All', 'Sobib', and 'Loobu'. The PubMed interface includes a search bar, filters, and a 'Results by year' chart.



- Hasart
  - Nii palju põnevaid artikleid
  - Hakkan juba natuke taipama
- Rahulolu
  - Ma sain selle infotulvaga hakkama
  - Tundus, et tööühm sai ka aru mida ma öelda tahtsin
- Ajapuudus



- Haavainfiltratsioon vs platseebo-12 süstemaatilist ülevaadet
  - Laparotoomiad
  - Laparoskoopilised operatsioonid
  - Kraniotoomia
  - Seljaoperatsioonid
  - Tonsillektoomiad
  - Keisrilõige
  - Puusaliigese endoproteesimine
  - Põlveliigese endoproteesimine
- Valu tugevus ja opioidi vajadus
  - 2, 4, 6, 8, 12, 24, 48, 72 tunnil
  - Rahuolekus ja liigutamisel
- Kõrvaltoimete esinemissagedus

**Is postoperative pain intensity affected by preemptive (preventive) administration of analgesics versus no administration of analgesics?**

Critical outcome indicators: pain intensity, need for supplemental analgesics, time to first dose of analgesic, side-effects (adverse effect) of analgesics, frequency of postoperative complications, time of presence in recovery (post-anaesthesia care-unit)

**Kliiniline küsimus nr 7.**

**Is the outcome of pain management affected by commencement the pain management intraoperative vs postoperative period?**

Critical outcome indicators: pain intensity, reduction of pain, need for supplemental analgesics (including opioid), frequency of postoperative complications, rehospitalization due to pain, patient (legal guardian) satisfaction with pain treatment time of presence in recovery (post-anaesthesia care-unit)

**Kokkuvõte:**

Me ei leidnud uuringuid, mis võrdleksid valuravi alustamist intraoperatiivses versus postoperatiivses perioodis. Seega ei saa hinnata, kuidas see mõjutab valuravi tulemust. Enamikes uuringutes on keskendunud erinevate analgeesia tehnikate võrdlemisele enne ja peale nahalõiget ja nende mõjule ägedale postoperatiivsele valule.

Postoperatiivses valuravis on peamine eesmärk saavutada parim analgeetiline tulemus võimalikult väikeste ravimite annustega vältimaks nendest põhjustatud kõrvaltoimeid. See on saavutatav multimodaalse ja ennetava (preemptive) analgeesiaga. Efektives ennetavad analgeesia tehnikad kasutavad väga erinevaid farmakoloogilisi vahendeid vähendamaks või blokeerimaks valuretseptorite aktiveerumisest johtuvat perifeerset ja tsentraalset sensitisatsiooni aga ka valu neurotransmitterite aktiivsust või produktsiooni.

Ravim/meetod	Operatsioon	Ravijuhendi soovitus	Tulemusnäitaja	Viide
Torakaal epiduraalanalgeesia	Torakotoomia	DE-09 -jah	Age valu ↓ 24 h ja 48 h, kroonilist valu ei mõjuta	Bong: 6 studies, 458 pt
Lokaalanesteetikumid intraperitoneaalselt	Laparoskoopilised operatsioonid		Postop valu ↓ 4, 8, 24 h (VAS)	Coughlin SM, 26 RCTs
Infiltratsioon lokaalanesteetikumidega	Opi liiki pole mainitud		Postop valu ↓ 4 ja 24 h (VAS). Preop vs postop lõike infiltratsioonil vahet ei olnud.	Coughlin SM, 26 RCTs
Deksametasoon	Opi liiki pole mainitud		↓ valu skoon 2 ja 24 h peale op-i. ↓ opiaadi vajadus 2 ja 24 h peale op-i. ↓ lisavaluvaigisti vajadus. ↓ PACU-s viibimise aeg. ↑ veresuhkru taset veres 24 h peale op-i.	Waldron NH; 45 RCTs, 5796 pt
Ketorolac	Opi liiki pole mainitud	DE-09 NSAID-de ei soovitata TEP ja HIP puhul	60 mg ↓ opiaadi tarbimist ja PONV-i	De Oliveira GS, 13 RCTs, 782 pt
Koksiibid	Opi liiki ei ole mainitud	Sama	Preop koksiibid ↓ postop valu ja analgeetikumide tarbimist. PONV- ↘ Intraop verekadu ja anesteesiast ärkamine ↘	Straube S; 22 RCTs, 2246 pt

		SOOVITUS		
NMDA retseptorite antagonistid (ketamiin, deksstrometorfaan)	Ulakõht, rindkere ja suured ortopeedilised operatsioonid	AU-10 jah	↓ postop valu ja analgeetikumide tarbimist.	Laskowski K; 40 RCTs McCartney CJ; 70 RCTs, 4701 pt
Tramadool	Hüsterektoomia, hemikolektoomia, appendektoomia		100 mg tramadooli preop ↓ postop valu ja analgeetikumide tarbimist.	Castro F, De La Paz-Estrada C, Wordliczek J
Gabapentiin	Opi liiki ei ole mainitud	DE-09 jah, URO-13 jah	↓ postop valu ja opiaatide tarbimist, kõrvaltoimed ↘	Seib RK; 8 RCTs

**Systematic reviews**

There is good quality evidence available from 6 meta-analysis of RCT-s and 4 systematic reviews about preemptive administration of analgesics versus no administration of analgesics.

**Preemptive analgesia**

In a meta-analysis (66 studies, N=3261) the primary outcome measures analyzed were the pain intensity scores, supplemental analgesic consumption, and time to first analgesic consumption. When the data from all three outcome measures were combined, the ES (effect size index) was most pronounced for preemptive administration of epidural analgesia (ES, 0.38; 95% confidence interval [CI], 0.28-0.47), local anesthetic wound infiltration (ES, 0.29; 95% CI, 0.17-0.40), and NSAID administration (ES, 0.39; 95% CI, 0.27-0.48). Whereas preemptive epidural analgesia resulted in consistent improvements in all three outcome variables, preemptive local anesthetic wound infiltration and NSAID administration improved analgesic consumption and time to first rescue analgesic request, but not postoperative pain scores. The least proof of efficacy was found in the case of systemic NMDA antagonist (ES, 0.09; 95% CI, -0.03 to 0.22) and opioid (ES, -0.10; 95% CI, -0.26 to 0.07) administration, and the results remain equivocal.

**Preemptive epidural analgesia**

**A meta-analysis of 6 studies including 458 patients:** Pooled analyses indicated that preemptive thoracic epidural analgesia (TEA) was associated with a statistically significant reduction in the severity of acute pain on coughing at 24 and 48 hours (weighted mean difference -1.17 [95% confidence interval (CI) -1.50 to -0.83] and -1.08 [95% CI -1.17 to -0.99]), respectively. Acute pain was a good predictor of chronic pain. However, there was no statistically significant difference in the overall incidence of chronic pain at 6 months between the preemptive TEA group (39.6%) and the control group (48.6%). Preemptive TEA appeared to reduce the severity of acute pain but had no effect on the incidence of chronic pain.

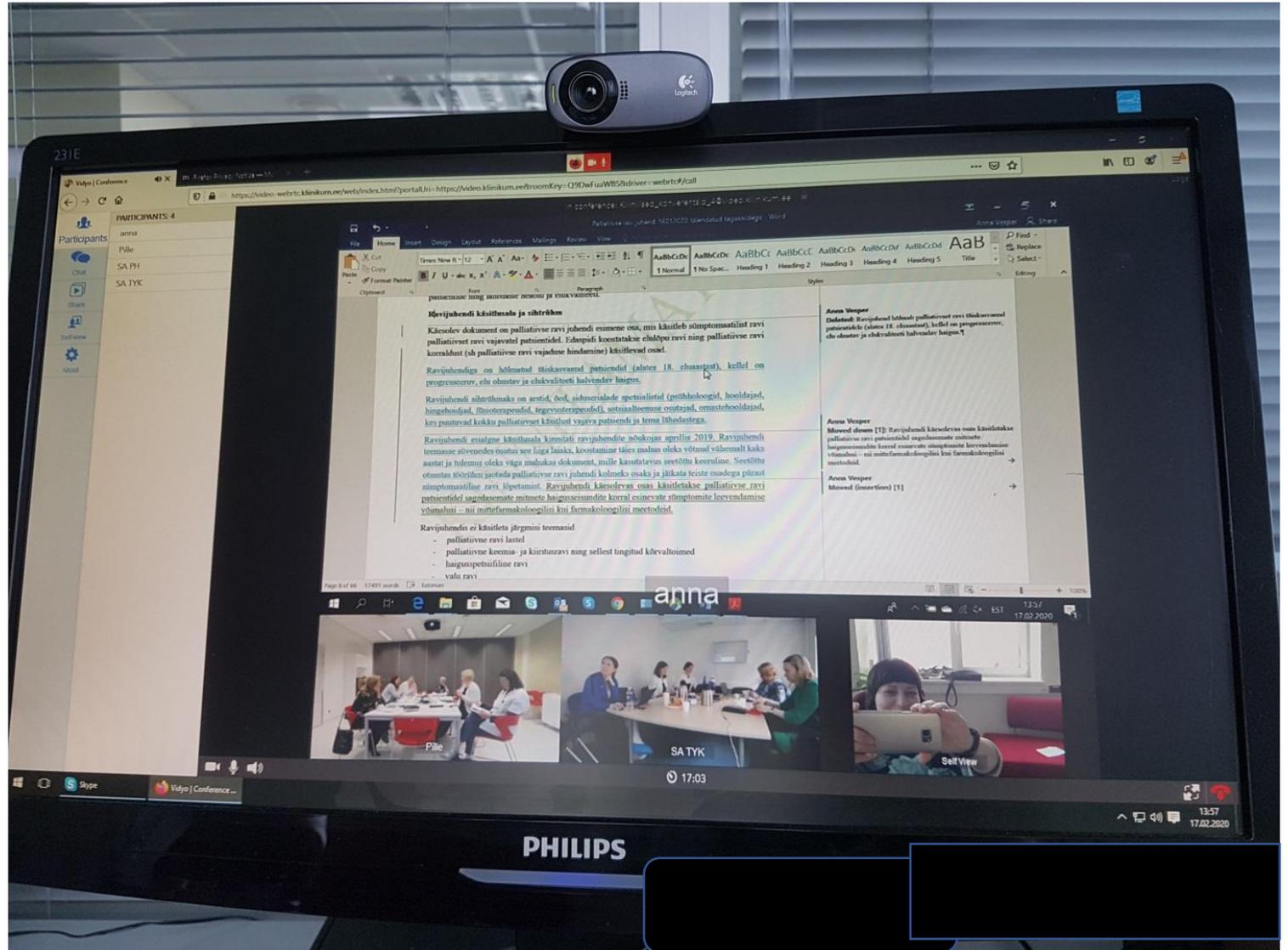
**Local analgesia – timing**

**26 studies were included in the analysis. Preemptive incisional local anesthetic was superior to placebo in terms of visual analog pain scores (VAS) at 4 h** (weighted mean difference [WMD], -9.49 mm; 95% confidence interval [CI], -15.50 to -3.48) **and 24 h** (WMD, -4.75 mm; 95%CI, -8.90 to 0.60). However, no difference was found between these measures and those for postoperative incision-site infiltration. **Preemptive intraperitoneal local anesthetic was superior to placebo in terms of VAS at 4 h** (WMD, 5.76 mm; 95%CI, -11.27 to -0.25), **8 h** (WMD, -9.64 mm; 95%CI, -13.68 to -5.60), **12 h** (WMD, -4.68 mm; 95%CI, -5.86 to -3.49), **and 24 h** (WMD, -5.57 mm; 95%CI, -8.35 to -2.79), **and superior to postoperative anesthesia administration at 8 h** (WMD, -7.42; 95%CI, -13.40 to -1.45), **12 h** (WMD, -7.27 mm; 95%CI, -10.26 to -4.28), **and 24 h** (WMD, -7.95 mm; 95%CI, -12.33 to -3.56). Preemptive administration of local anesthetic at the incision site reduces postoperative pain compared with placebo but achieves an analgesic effect similar to that of postincisional anesthetic infiltration. Preemptive local anesthetic administered intraperitoneally decreases postoperative pain compared with both placebo and postoperative infiltration. Surgeons should use local analgesia in laparoscopic surgery to decrease postoperative pain, but the timing of administration is significant only for intraperitoneal infiltration.

**Peripheral nerve blocks and intravenous local anaesthetics**

In this review (included 89 studies) they examined several types of peripheral nerve blocks, covering a variety of surgical procedures and examined the effects of intentionally administered

# Töörühma koosolek



# Lõpp

- Kergendus- lõpuks ometi on see valmis!
  - Kerge rahutus esialgu, midagi oleks nagu puudu....
- Väsimus- ei taha enam sellest teemast midagi kuulda
- Rõõm, uhkustunne, rahulolu endaga, tulemusega
  - Funktsionaalse lugemisoskuse kõrgeim tase
  - Mugavustsoonist väljas
  - Kogu internet on läbi loetud 😊
  - Omandasin uued oskused
    - Keeletoimetaja
    - Wordi spetsialist
    - Koosoleku juhataja/klassi korrapidaja
  - **Kohtumine uute tarkade, huvitavate ja põnevate inimestega**



Kokkuvõtteks: pole hullu midagi, täitsa põnev oli

