Autor(id): Urmeli Katus

Küsimus: Kas kõigil ravinaiivsetel 2. tüüpi diabeeti põdevatel inimestel alustada ravi elustiilisekkumisega või suukaudse antidiabeetilise ravimiga või mõlemaga, parema ravitulemuse saamiseks?

Kontekst:

Bibliograafia:

Tõendatuse astme hinnang							Mõju	Tõendatuse aste	Olulisus
Uuringute arv	Uuringukavand	Nihke tõenäosus	Tõenduse ebakõla	Tõenduse kaudsus	Tõenduse ebatäpsus	Muud kaalutlused			
Keskmine erinevus HbA1c algväärtusest (mean difference from baseline) kui langus kehakaalus oli ≥ 5% (järelkontroll: keskmine 12 kuud)									
2 [1,2,a,b]	jälgimisuuringud	väga suur [c]	suur [d]	väike	suur [e]	puudub	Keskmine erinevus (MD) algväärtusest = –0,91% (95% CI –2,3; 0,48)	⨁◯◯◯ VÄGA MADAL	KRIITILINE
Keskmine erinevus HbA1c algväärtusest (mean difference from baseline) kui langus kehakaalus oli < 5% (järelkontroll: keskmine 12 kuud)									
17 [1,3,4,5,6,7,8,9,10,11,a,b,f]	jälgimisuuringud	väga suur [c]	väike	väike	suur [e]	puudub	Keskmine erinevus (MD) algväärtusest = –0,224% (95% CI –0,64; 0,19)	⨁◯◯◯ VÄGA MADAL	KRIITILINE
Keskmine erinevus HbA1c algväärtusest (mean difference from baseline) (järelkontroll: keskmine 12 kuud)									
3 [2,9,11,a,b]	jälgimisuuringud	väga suur [c]	väike	väike	suur [e]	puudub	Keskmine erinevus (MD) algväärtusest = –0,128% (95% CI –1,56; 1,31)	⨁◯◯◯ VÄGA MADAL	KRIITILINE
Keskmine erinevus üldkolesterooli (mg/dl) algväärtusest (mean difference from baseline) kui langus kehakaalus oli ≥ 5% (järelkontroll: keskmine 12 kuud)									
1 [1,a,b]	jälgimisuuringud	väga suur [c]	väike	väga suur [g]	suur [e,h]	puudub	Keskmine erinevus (MD) = –15,1 mg/dl (95% CI –46,43; 16.23)	⨁◯◯◯ VÄGA MADAL	KRIITILINE
Keskmine erinevus üldkolesterooli (mg/dl) algväärtusest (mean difference from baseline) kui langus kehakaalus oli < 5% (järelkontroll: keskmine 12 kuud)									
15 [1,3,4,5,6,7,9,10,11,a,b,f]	jälgimisuuringud	väga suur [c]	väike	väga suur [g]	suur [e]	puudub	Keskmine erinevus (MD) = –4,39 mg/dl (95% CI –15,47; 6.69)	⨁◯◯◯ VÄGA MADAL	KRIITILINE
Keskmine erinevus üldkolesterooli (mg/dl) algväärtusest (mean difference from baseline) (järelkontroll: keskmine 12 kuud)									
2 [9,11,a,b]	jälgimisuuringud	väga suur [c]	väike	väga suur [g]	suur [e]	puudub	Keskmine erinevus (MD) = 4,24 mg/dl (95% –64,36; 72,83)	⨁◯◯◯ VÄGA MADAL	KRIITILINE
Keskmine erinevus LDL-kolesterooli (mg/dl) algväärtusest (mean difference from baseline) kui langus kehakaalus oli ≥ 5% (järelkontroll: keskmine 12 kuud)									

Tõendatuse astme hinnang							Mõju	Tõendatuse aste	Olulisus
Uuringute arv	Uuringukavand	Nihke tõenäosus	Tõenduse ebaköla	Tõenduse kaudsus	Tõenduse ebatäpsus	Muud kaalutlused			
1 [2]	jälgimisuuringud	väga suur [c]	väike	väga suur [g]	suur [e]	puudub	Keskmine erinevus (MD) = –4,44 mg/dl (95% CI –61,49; 52,61)	⨁◯◯◯ VÄGA MADAL	KRIITILINE

Keskmine erinevus LDL-kolesterooli (mg/dl) algväärtusest (mean difference from baseline) kui langus kehakaalus oli < 5% (järelkontroll: keskmine 12 kuud)

14 [3,4,5,6,7,9,10,11,a,b,f]	jälgimisuuringud	väga suur [c]	väike	väga suur [g]	suur [e]	puudub	Keskmine erinevus (MD) = –0,67 mg/dl (95% CI –16,87; 15,53)	⨁◯◯◯ VÄGA MADAL	KRIITILINE

Keskmine erinevus LDL-kolesterooli (mg/dl) algväärtusest (mean difference from baseline) (järelkontroll: keskmine 12 kuud)

3 [2,9,11,a,b]	jälgimisuuringud	väga suur [c]	väike	väga suur [g]	suur [e]	puudub	Keskmine erinevus (MD) = –0,62 mg/dl (95% CI –34,7; 33,47)	⨁◯◯◯ VÄGA MADAL	KRIITILINE

Keskmine erinevus HDL-kolesterooli (mg/dl) algväärtusest (mean difference from baseline) kui langus kehakaalus oli ≥ 5% (järelkontroll: keskmine 12 kuud)

2 [1,2,a,b]	jälgimisuuringud	väga suur [c]	väike	väga suur [g]	suur [e]	puudub	Keskmine erinevus (MD) = 3,76 mg/dl (95% CI –10,62; 18,15)	⨁◯◯◯ VÄGA MADAL	KRIITILINE

Keskmine erinevus HDL-kolesterooli (mg/dl) algväärtusest (mean difference from baseline) kui langus kehakaalus oli < 5% (järelkontroll: keskmine 12 kuud)

15 [1,3,4,5,6,7,9,10,11,a,b,f]	jälgimisuuringud	väga suur [c]	suur [d]	väga suur [g]	suur [e]	puudub	Keskmine erinevus (MD) = 1,22 mg/dl (95% CI –0,37; 2,82)	⨁◯◯◯ VÄGA MADAL	KRIITILINE

Keskmine erinevus HDL-kolesterooli (mg/dl) algväärtusest (mean difference from baseline) (järelkontroll: keskmine 12 kuud)

3 [2,9,11,a,b]	jälgimisuuringud	väga suur [c]	väike	väga suur [g]	suur [g]	puudub	Keskmine erinevus (MD) = 0,55 mg/dl (95% CI –8,26; 9,37)	⨁◯◯◯ VÄGA MADAL	KRIITILINE

Keskmine erinevus triglütseriidide (mg/dl) algväärtusest (mean difference from baseline) kui langus kehakaalus oli > 5% (järelkontroll: keskmine 12 kuud)

2 [1,2,a,b]	jälgimisuuringud	väga suur [c]	väike	väga suur [g]	suur [e]	puudub	Keskmine erinevus (MD) = –35,11 mg/dl (95% CI –189,15; 118,91)	⨁◯◯◯ VÄGA MADAL	KRIITILINE

Keskmine erinevus triglütseriidide (mg/dl) algväärtusest (mean difference from baseline) kui langus kehakaalus oli < 5% (järelkontroll: keskmine 12 kuud)

13 [1,3,4,5,7,9,10,11,a,b,f]	jälgimisuuringud	väga suur [c]	väike	väga suur [g]	suur [e]	puudub	Keskmine erinevus (MD) = –16,9 (95% CI –88,97; 55,07)	⨁◯◯◯ VÄGA MADAL	KRIITILINE

Tõendatuse astme hinnang							Mõju	Tõendatuse aste	Olulisus
Uuringute arv	Uuringukavand	Nihke tõenäosus	Tõenduse ebaköla	Tõenduse kaudsus	Tõenduse ebatäpsus	Muud kaalutlused			
Keskmine erinevus triglütseriidide (mg/dl) algväärtusest (mean difference from baseline) (järelkontroll: keskmine 12 kuud)									
3 [2,9,11,a,b]	jälgimisuuringud	väga suur [c]	suur [d]	väga suur [g]	suur [e]	puudub	Keskmine erinevus (MD) = 9,07 mg (95% CI –117,39; 135,54)	⨁◯◯◯ VÄGA MADAL	KRIITILINE
Keskmine erinevus süstoolse vererõhu (mmHg) algväärtusest (mean difference from baseline) kui langus kehakaalus oli > 5% (järelkontroll: keskmine 12 kuud)									
2 [1,2]	jälgimisuuringud	väga suur [c]	suur [d]	väga suur [g]	suur [e]	puudub	Keskmine erinevus (MD) = –5,24 mmHg (95% CI –13,77; 3,3)	⨁◯◯◯ VÄGA MADAL	KRIITILINE
Keskmine erinevus süstoolse vererõhu (mmHg) algväärtusest (mean difference from baseline) kui langus kehakaalus oli < 5% (järelkontroll: keskmine 12 kuud)									
12 [1,3,4,5,6,9,10,a,b,f]	jälgimisuuringud	väga suur [c]	suur [d]	väga suur [g]	väike	puudub	Keskmine erinevus (MD) = –2,24 mmHg (95% CI –5,83; 1,34)	⨁◯◯◯ VÄGA MADAL	KRIITILINE
Keskmine erinevus süstoolse vererõhu (mmHg) algväärtusest (mean difference from baseline) (järelkontroll: keskmine 12 kuud)									
2 [2,9]	jälgimisuuringud	väga suur [c]	väike	väga suur [g]	suur [e]	puudub	Keskmine erinevus (MD) = –6,61 mmHg (95% CI –27,56; 14,34)	⨁◯◯◯ VÄGA MADAL	KRIITILINE
Keskmine erinevus diastoolse vererõhu (mmHg) algväärtusest (mean difference from baseline) kui langus kehakaalus oli > 5% (järelkontroll: keskmine 12 kuud)									
2 [1,2,a,b]	jälgimisuuringud	väga suur [c]	väike	väga suur [g]	suur [e]	puudub	Keskmine erinevus (MD) = –3,13 mmHg (95% CI –19,13; 12,87)	⨁◯◯◯ VÄGA MADAL	KRIITILINE
Keskmine erinevus diastoolse vererõhu (mmHg) algväärtusest (mean difference from baseline) kui langus kehakaalus oli < 5% (järelkontroll: keskmine 12 kuud)									
12 [1,3,4,5,6,9,10,a,b,f]	jälgimisuuringud	väga suur [c]	väike	väga suur [g]	suur [e]	puudub	Keskmine erinevus (MD) = –3,53 mmHg (95% CI –9,80; 2,73)	⨁◯◯◯ VÄGA MADAL	KRIITILINE
Keskmine erinevus diastoolse vererõhu (mmHg) algväärtusest (mean difference from baseline) (järelkontroll: keskmine 12 kuud)									
2 [2,9,a,b]	jälgimisuuringud	väga suur [c]	väike	väga suur [g]	suur [e]	puudub	Keskmine erinevus (MD) = –2,94 mmHg (95% CI –13,31; 7,44)	⨁◯◯◯ VÄGA MADAL	KRIITILINE
HbA1c (%) keskmiste erinevus (struktureeritud aeroobne treening vs. kontroll) (järelkontroll: vahemik 12 nädalat kuni 52 nädalat)									

Tõendatuse astme hinnang							Mõju	Tõendatuse aste	Olulisus
Uuringute arv	Uuringukavand	Nihke tõenäosus	Tõenduse ebaköla	Tõenduse kaudsus	Tõenduse ebatäpsus	Muud kaalutlused			
20 [12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,f,i]	randomiseeritud uuringud	väga suur [j]	väga suur [k]	väike	väike	puudub	Keskmiste erinevus (ingl *weighted mean difference*) aeroobne treening (n = 490) vs. kontroll (n = 455) = –0,73% (95% CI –1,06; –0,40)	⊕◯◯◯ VÄGA MADAL	KRIITILINE

HbA1c (%) keskmiste erinevus (struktureeritud vastupidavustreening vs. kontroll) (järelkontroll: vahemik 16 nädalat kuni 39 nädalat)

4 [17,29,30,31,j]	randomiseeritud uuringud	väga suur [j]	väga suur [l]	väike	suur [e]	puudub	Keskmiste erinevus (ingl *weighted mean difference*) vastupidavustreening (n = 182) vs. kontrollrühm (n = 148) = –0,57% (95% CI–1,14; –0,01)	⊕◯◯◯ VÄGA MADAL	KRIITILINE

HbA1c (%) keskmiste erinevus (kombineeritud treening vs. kontroll) (järelkontroll: vahemik 12 nädalat kuni 52 nädalat)

7 [15,17,18,29,32,33,34,i]	randomiseeritud uuringud	väga suur [j]	suur [m]	väike	väike	puudub	Keskmiste erinevus (ingl *weighted mean difference*) kombineeritud treening (n = 262) vs. kontroll (n = 222) = –0,51% (95% CI –0,79; –0,23)	⊕◯◯◯ VÄGA MADAL	KRIITILINE

HbA1c (%) keskmiste erinevus (füüsilise aktiivsuse alane nõustamine koos toitumise ko-interventsiooniga vs. kontroll) (järelkontroll: vahemik 26 nädalat kuni 104 nädalat)

12 [35,36,37,38,39,40,41,42,43,44,45,46,i]	randomiseeritud uuringud	väga suur [n]	suur [o]	väike	väike	puudub	Keskmiste erinevus (ingl *weighted mean difference*) füüsilise aktiivsuse alane nõustamine koos toitumisalase ko-interventsiooniga (n = 3126) vs. kontroll (n = 3171) = –0,58% (95% CI –0,74; –0,43)	⊕◯◯◯ VÄGA MADAL	KRIITILINE

HbA1c (%) keskmiste erinevus (füüsilise aktiivsuse alane nõustamine vs. kontroll) (järelkontroll: vahemik 12 nädalat kuni 52 nädalat)

14 [47,48,49,50,51,52,53,54,55,56,57,58,f,i]	randomiseeritud uuringud	väga suur [n]	suur [p]	väike	väike	puudub	Keskmiste erinevus (ingl *weighted mean difference*) füüsilise aktiivsuse alane nõustamine (n = 403) vs. kontroll (n = 367) = –0,16% (95% CI –0,50; 0,18)	⊕◯◯◯ VÄGA MADAL	KRIITILINE

HbA1c (%) keskmiste erinevus (ingl mean difference) (käitumuslik sekkumine vs. kontroll) sekkumise pikkus varieerus 2 päevast 1 aastani

8 [59,60,61,62,63,64,65,66,q,r]	randomiseeritud uuringud	suur [s]	väike [t]	väike	väike	puudub	Keskmiste erinevus (ingl *mean difference*) käitumuslik sekkumine (n = 1050) vs. kontroll (n = 985) = –0,44% (95% CI –0,60; –0,29)	⊕⊕⊕◯ KESKMINE	KRIITILINE

HbA1c (%) keskmiste erinevus (ingl mean difference) (käitumuslik sekkumine vs. kontroll) sekkumise pikkus < 6 nädalat

3 [61,64,66,q,r]	randomiseeritud uuringud	suur [u]	väike [v]	väike	väike	puudub	Keskmiste erinevus (ingl *mean difference*) käitumuslik sekkumine (n = 558) vs. kontroll (n = 508) = –0,42 (95% CI –0,68; –0,15)	⊕⊕⊕◯ KESKMINE	KRIITILINE

Tõendatuse astme hinnang							Mõju	Tõendatuse aste	Olulisus
Uuringute arv	Uuringukavand	Nihke tõenäosus	Tõenduse ebaköla	Tõenduse kaudsus	Tõenduse ebatäpsus	Muud kaalutlused			
HbA1c (%) keskmiste erinevus (ingl mean difference) (käitumuslik sekkumine vs. kontroll) sekkumise pikkus 6 nädalat > x < 1 aasta									
3 [59,62,63,q,r]	randomiseeritud uuringud	väga suur [w]	suur [x]	väike	väike	puudub	Keskmiste erinevus (ingl *mean difference*) käitumuslik sekkumine (n = 355) vs. kontroll (n = 337) = –0,43% (95% CI –0,74; –0,12)	⨁◯◯◯ VÄGA MADAL	KRIITILINE
HbA1c (%) keskmiste erinevus (ingl mean difference) (käitumuslik sekkumine vs. kontroll) sekkumise pikkus 1 aasta									
2 [60,65,q,r]	randomiseeritud uuringud	suur [y]	väike	suur [z]	väike	puudub	Keskmiste erinevus (ingl *mean difference*) käitumuslik sekkumine (n = 137) vs. kontroll (n = 140) = –0,68% (95% CI –1,22; –0,14)	⨁⨁◯◯ MADAL	KRIITILINE
HbA1c (%) keskmiste erinevus (ingl mean difference) (käitumuslik sekkumine vs. kontroll) esmatasand									
3 [61,64,66,q,r]	randomiseeritud uuringud	suur [u]	väike [aa]	väike	väike	puudub	Keskmiste erinevus (ingl *mean difference*) käitumuslik sekkumine (n = 558) vs. kontroll (n = 508) = –0,42% (95% CI –0,68; –0,15)	⨁⨁⨁◯ KESKMINE	KRIITILINE
HbA1c (%) keskmiste erinevus (ingl mean difference) (käitumuslik sekkumine vs. kontroll) kogukonnas									
5 [59,60,62,63,65]	randomiseeritud uuringud	väga suur [ab]	väike [ac]	väike	väike	puudub	Keskmiste erinevus (ingl *mean difference*) käitumuslik sekkumine (n = 492) vs. kontroll (n = 477) = –0,48% (95% CI –0,70; –0,26).	⨁⨁◯◯ MADAL	KRIITILINE
HbA1c keskmiste erinevus (ingl mean difference) (käitumuslik sekkumine vs. kontroll) grupinõustamine									
5 [60,63,64,65,66,q,r]	randomiseeritud uuringud	väga suur [ad]	väike [ae]	väike	väike	puudub	Keskmiste erinevus (ingl *mean difference*) käitumuslik sekkumine (n = 774) vs. kontroll (n = 719) = –0,47% (95% CI –0,66; –0,28).	⨁⨁◯◯ MADAL	KRIITILINE
HbA1c keskmiste erinevus (käitumuslik sekkumine vs. kontroll) (ingl mean difference) individuaalne nõustamine									
1 [61,q,r]	randomiseeritud uuringud	suur [af]	väike	väike	suur [ag]	puudub	Keskmiste erinevus (ingl *mean difference*) käitumuslik sekkumine (n = 71) vs. kontroll (n = 70) = –0,80% (95% CI –1,35; –0,25).	⨁⨁◯◯ MADAL	KRIITILINE
HbA1c keskmiste erinevus (ingl mean difference) (käitumuslik sekkumine vs. kontroll) HbA1c uuringu alguses < 9%									
6 [59,60,62,63,64,66,q,r]	randomiseeritud uuringud	väga suur [ah]	väike [ai]	väike	väike	puudub	Keskmiste erinevus (ingl *mean difference*) käitumuslik sekkumine (n = 867) vs. kontroll (n = 803) = –0,40% (95% CI –0,55; –0,24).	⨁⨁◯◯ MADAL	KRIITILINE
HbA1c keskmiste erinevus (ingl mean difference) (käitumuslik sekkumine vs. kontroll) HbA1c uuringu alguses ≥ 9%									

Tõendatuse astme hinnang							Mõju	Tõendatuse aste	Olulisus
Uuringute arv	Uuringukavand	Nihke tõenäosus	Tõenduse ebakõla	Tõenduse kaudsus	Tõenduse ebatäpsus	Muud kaalutlused			
2 [61,65,q,r]	randomiseeritud uuringud	suur [aj]	väike [ak]	suur [z]	väike	puudub	Keskmiste erinevus (ingl *mean difference*) käitumuslik sekkumine (n = 183) vs. kontroll (n = 182) = –0,79% (95% CI –1,23; –0,34).	⨁⨁◯◯ MADAL	KRIITILINE

HbA1c muutus keskmiste erinevus (mean difference) (igasugune toitumisalane sekkumine vs. kontroll) (0-24 kuud)

59 [67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,al,am,an,ao,f]	randomiseeritud uuringud	suur [ap]	suur [aq]	väike	väike	puudub	Keskmiste erinevus (ingl *mean difference*) igasugune toitumisalane sekkumine (n = 2674) vs. kontroll (n = 2208) = –0,35% (95% CI –0,43; –0,28)	⨁⨁◯◯ MADAL	

HbA1c muutus keskmiste erinevus (ingl mean difference) (igasugune toitumisalane sekkumine vs. kontroll) (0-3 kuud)

35 [68,70,73,74,75,76,78,79,80,81,82,83,84,85,89,91,93,94,98,99,100,102,103,105,108,109,111,112,113,114,118,119,al,am,an,ao,f]	randomiseeritud uuringud	suur [ap]	suur [ar]	väike	väike	puudub	Keskmiste erinevus (ingl *mean difference*) igasugune toitumisalane sekkumine (n = 1326) vs. kontroll (n = 1193) = –0,37% (95% CI –0,48; –0,26).	⨁⨁◯◯ MADAL	KRIITILINE

HbA1c muutus keskmiste erinevus (ingl mean difference) (igasugune toitumisalane sekkumine vs. kontroll) (3-6 kuud)

26 [67,69,70,71,78,81,86,88,90,91,95,96,97,98,101,103,104,106,107,110,115,117,120,al,am,an,ao,f]	randomiseeritud uuringud	suur [ap]	suur [as]	väike	väike	puudub	Keskmiste erinevus (ingl *mean difference*) igasugune toitumisalane sekkumine (n = 1659) vs. kontroll (n = 1346) = –0,37% (95% CI –0,48; –0,26)	⨁⨁◯◯ MADAL	KRIITILINE

HbA1c muutus keskmiste erinevus (ingl mean difference) (igasugune toitumisalane sekkumine vs. kontroll) (6-12 kuud)

16 [67,77,78,87,92,96,97,98,99,104,106,115,116,117,al,am,an,ao,f]	randomiseeritud uuringud	suur [ap]	väike [at]	väike	väike	puudub	Keskmiste erinevus (ingl *mean difference*) igasugune toitumisalane sekkumine (n = 1141) vs. kontroll (n = 775) = –0,40% (95% CI –0,52; –0,28)	⨁⨁⨁◯ KESKMINE	KRIITILINE

HbA1c muutus keskmiste erinevus (mean difference) (igasugune toitumisalane sekkumine vs. kontroll) (12-24 kuud)

5 [72,77,87,88,117,al,am,an,ao]	randomiseeritud uuringud	suur [ap]	suur [au]	väike	väike	puudub	Keskmiste erinevus (ingl *mean difference*) igasugune toitumisalane sekkumine (n = 186) vs. kontroll (n = 147) = –0,14% (95% CI –0,63; 0,35)	⨁⨁◯◯ MADAL	KRIITILINE

Kehamassi (kg) muutus keskmiste erinevus (igasugune toituminsalane sekkumine vs. kontroll (mean difference) (0-24 kuud)

54 [67,68,69,70,71,72,73,74,75,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,94,95,96,98,99,100,101,102,103,105,106,107,108,109,110,112,113,114,115,116,117,118,119,120,al,am,an,ao,f]	randomiseeritud uuringud	suur [ap]	väga suur [av]	väike	väike	puudub	Keskmiste erinevus (ingl *mean difference*) igasugune toitumisalane sekkumine (n = 2445) vs kontroll (n = 2051) = –2,41kg (95% CI –2,96; –1,86).	⨁◯◯◯ VÄGA MADAL	KRIITILINE

Tõendatuse astme hinnang							Mõju	Tõendatuse aste	Olulisus
Uuringute arv	Uuringukavand	Nihke tõenäosus	Tõenduse ebaköla	Tõenduse kaudsus	Tõenduse ebatäpsus	Muud kaalutlused			
Kehamassi (kg) muutus keskmiste erinevus (mean difference) (igasugune toituminsalane sekkumine vs. kontroll (0-3 kuud)									
33 [68,70,72,73,74,75,78,79,80,82,83,84,85,89,91,94,98,99,100,102,103,105,107,108,109,112,113,114,118,119,al,am,an,ao,ap,f]	randomiseeritud uuringud	suur [ap]	väga suur [aw]	väike	väike	puudub	Keskmiste erinevus (ingl *mean difference*) igasugune toitumisalane sekkumine (n = 1271) vs. kontroll (n = 1145) = –2,34kg (95% CI –2,99; –1,69).	⨁◯◯◯ VÄGA MADAL	KRIITILINE
Kehamassi (kg) muutus keskmiste erinevus (ingl mean difference) (igasugune toituminsalane sekkumine vs. kontroll (3-6 kuud)									
24 [67,69,70,71,72,78,81,86,88,90,91,95,96,98,101,103,106,107,110,115,120,al,am,an,ao,f]	randomiseeritud uuringud	suur [ap]	väga suur [ax]	väike	väike	puudub	Keskmiste erinevus (ingl *mean difference*) igasugune toitumisalane sekkumine (n = 1562) vs. kontroll (n = 1288) = –2,94kg (95% CI –3,92; –1,97).	⨁◯◯◯ VÄGA MADAL	KRIITILINE
Kehamassi (kg) muutus keskmiste erinevus (mean difference) (igasugune toituminsalane sekkumine vs. kontroll (6-12 kuud)									
14 [67,78,87,92,96,98,99,106,115,116,117,al,am,an,ao,f]	randomiseeritud uuringud	suur [ap]	väga suur [ay]	väike	väike	puudub	Keskmiste erinevus (ingl *mean difference*) igasugune toitumisalane sekkumine (n = 1000) vs. kontroll (n = 704) = –2,27kg (95% CI –3,32; –1,21).	⨁◯◯◯ VÄGA MADAL	KRIITILINE
Kehamassi (kg) muutus keskmiste erinevus (igasugune toituminsalane sekkumine vs. kontroll (mean difference) (12-24 kuud)									
4 [87,88,117,al,am,an,ao,f]	randomiseeritud uuringud	suur [ap]	väike [az]	väike	suur [ag]	puudub	Keskmiste erinevus (ingl *mean difference*) igasugune toitumisalane sekkumine (n = 103) vs. kontroll (n = 102) = –2,14kg (95% CI –3,34; –0,93).	⨁⨁◯◯ MADAL	KRIITILINE
HbA1c muutus keskmiste erinevus (ingl mean difference) (madala süsivesikusisaldusega ehk LC dieet vs. kontroll)									
9 [69,75,78,84,85,95,96,113,120,ao]	randomiseeritud uuringud	suur [ap]	väike [ba]	väike	väike	puudub	Keskmiste erinevus (ingl *mean difference*) madala süsivesikusisaldus dieet ehk LC dieet (n = 220) vs. kontroll (n = 213) = –0,44% (95% CI –0,58; –0,31)	⨁⨁⨁◯ KESKMINE	KRIITILINE
HbA1c muutus keskmiste erinevus (ingl mean difference) (madala rasvasisaldusega ehk LF dieet vs. kontroll)									
16 [71,74,86,88,89,90,99,100,103,104,106,112,117,118,119,ao,f]	randomiseeritud uuringud	suur [ap]	suur [bb]	väike	väike	puudub	Keskmiste erinevus (ingl *mean difference*) madala rasvasisaldusega dieet ehk LF dieet (n = 598) vs. kontroll (n = 478) = –0,40% (95% CI –0,59; –0,20)	⨁⨁◯◯ MADAL	KRIITILINE
HbA1c muutus keskmiste erinevus (ingl mean difference) (kõrge valgusisaldusega ehk HP dieet vs. kontroll)									

Tõendatuse astme hinnang							Mõju	Tõendatuse aste	Olulisus
Uuringute arv	Uuringukavand	Nihke tõenäosus	Tõenduse ebaköla	Tõenduse kaudsus	Tõenduse ebatäpsus	Muud kaalutlused			
5 [79,80,83,109,114,ao]	randomiseeritud uuringud	suur [ap]	väga suur [bc]	väike	väike	puudub	Keskmiste erinevus (ingl *mean difference*) kõrge valgusisaldusega dieet ehk HP dieet (n = 50) vs. kontroll (n = 39) = –0,50% (95% CI –1,01; 0,00)	⨁◯◯◯ VÄGA MADAL	KRIITILINE
HbA1c muutus keskmiste erinevus (ingl mean difference) (toidu asendamine ingl meal replacement vs. kontroll)									
4 [82,87,102,108,ao]	randomiseeritud uuringud	suur [ap]	suur [bd]	väike	väike	puudub	Keskmine erinevus (ingl *mean difference*) toidu asendamine ingl *meal replacement* (n = 198) vs. kontroll (n = 167) = –0,56% (95% CI –0,91; –0,22)	⨁⨁◯◯ MADAL	KRIITILINE
HbA1c muutus sekkumiste erinevus (ingl mean difference) (madal glükeemiline indeks vs. kontroll)									
3 [100,105,115,ao]	randomiseeritud uuringud	suur [ap]	väike [be]	väike	väike	puudub	Keskmiste erinevus (ingl *mean difference*) madal glükeemiline indeks (n = 90) vs. kontroll (n = 90) = –0,09% (95% CI –0,38; 0,19)	⨁⨁⨁◯ KESKMINE	KRIITILINE
Hüpoglükeemia sagedus (%) dapagliflosiin vs. platseebo (järelkontroll: vahemik 12 nädalat kuni 24 nädalat)									
4 [bf,bg]	randomiseeritud uuringud	suur [bh]	väike	väike	väike	puudub	dapagliflosiini monoteraapia n = 882 vs. platseebo n = 251. Hüpoglükeemia sagedus platseebo 2,0% (n = 251), dapagliflosiin 2,5mg 2,5% (n = 321), dapagliflosiin 5mg 2,2% (n = 316), dapagliflosiin 10mg 2,9% (n = 245)	⨁⨁⨁◯ KESKMINE	KRIITILINE

CI: usaldusintervall

Selgitused

a. Franz et al. (2015). Lifestyle Weight-Loss Intervention Outcomes in Overweight and Obese Adults with Type 2 Diabetes: A Systematic Review and Meta-Analysis of Randomized Clinical Trials

b. Algselt oli tegemist RCT-dega. LOOK AHEAD (2007) intensiivne elustiilisekkumine (n=2570) vs toe pakkumine ja diabeedialane koolitus (n=2575); Metz (2000) ettevalmistatud toidukavad (n=149) vs tavaravi (n=153); Wolf (2004) elustiilialane juhtumikorraldus (n=74) vs tavaravi (n=73); Li (2005) soja baasil söögi asendamine (n=46) vs individualiseeritud toidukava (n=36); West (2007) MI (n=109) vs mitte midagi (n=108); Brehm (2009) MUFA (n=52) vs kõrge süsivesikusisaldusega dieet (n=43); Davis (2009) madala süsivesikusisaldusega (n=55) vs madala rasvasisaldusega dieet (n=50); Esposito (2009) Vahemere dieet (n=108) vs madala rasvasisaldusega dieet (n=107); Larsen (2011) madala rasva ja kõrge valgusisaldusega (n=53) vs madala rasva kõrge süsivesikusisaldusega dieet (n=46); Krebs (2012) madala rasva ja kõrge valgusisaldusega (n=207) vs madala rasva kõrge süsivesikusisaldusega dieet (n=212); Gulbrand (2012) madala rasvasisaldusega (n=31) vs madala süsivesikusisaldusega dieet (n = 30)

c. Meta-analüüsi autorid pole uuringute kvaliteeti hinnanud, põhjendades et kaasati ainult RCT. Kasutatud küll RCT-de andmeid kuid ümbergrupeerimise tõttu on antud analüüsis uuringu kavandiks enne ja pärast sekkumist analüüs.

d. Uuringute usaldusintervallid ei kattu

e. Lai usaldusvahemik

f. võrdluste arv

g. Meid huvitavad olulised kardiovaskulaarsed sündmused, tegemist aga kardiovaskulaarset riski peegeldava näitajaga

h. väike valim

i. Umpierre et al. (2011) Physical Activity Advice Only or Structured Exercise Training and Association With HbA1c Levels in Type 2 Diabetes: A Systematic Review and Meta-analysis

j. Kokku käsitles struktureerutud treeninguid 23 RCT. Süstemaatilise ülevaate ja meta-analüüsi autorid hindasi nihke riski. Hinnatud 23-st RCT 15-l on ebaselge kuidas toimus randomiseerimine, 19 RCT puhul oli ebaselge kas uuritavate uurimisrühmadesse jaotumine oli pimendatud (allocation concealment), ainult 2 RCT raporteeris ravikavatsusanalüüsi (intention to treat) tulemusi, ülejäänud uuringu lõpetanute tulemusi.

k. Aeroobne treening: I2 = 92,8%; p <0,001

l. Vastupidavustreening: I2 = 92,5%; p <0,001

m. Kombineeritud treening: I2 = 67,5%; p < 0,005

n. Füüsilise aktiivsuse alast nõustamist käsitleti 24 RCT-s. Süstemaatilise ülevaate ja meta-analüüsi autorid hindasid uuringutes nihke riski. Hinnatud 24-st RCT 15-l oli ebaselge kuidas toimus randomiseerimine, 20 RCT puhul oli ebaselge kas uuritavate uurimisrühmadesse jaotumine oli pimendatud (allocation concealment), ainult 4 RCT raporteeris ravikavatsusanalüüsi (intention to treat) tulemusi, ülejäänud uuringu lõpetanute tulemusi.

o. Füüsilise aktiivsuse alane nõustamine koos toitumisalase ko-interventsiooniga: I2 = 57,5%; p = 0,007

p. toitumisalane nõustamine: I2 = 61,2%; p = 0,001

q. Adolfsson et al (2007): grupipõhine võimestamine vs diabeedi tavaravi; Brown et al. (2002) diabeedi enesejuhtimise alane sekkumine vs tavaravi; Davies et al. (2008) struktureeritud grupipõhine diabeediõppe programm (DESMOND) vs tavaravi; Deakin et al. (2006) X-PERT programm vs individuaalne vastuvõtt; Rachmani et al. (2005) patsiendi osalusprogramm vs tavakonsultatsioon; Sarkadi et al. (2003) diabeedialse õppe programm vs kontroll; Whittemor et al. (2004) õe poolne juhendamine vs standardravi

r. Ontario HTA (2009). Behavioural Interventions for Type 2 Diabetes An Evidence-Based Analysis

s. Meta-analüüsi autorid hinnanud nihke riski. Osades uuringutes ebaselge uuritavate rühmadesse jagamise pimendamine (allocation concealment), ebaselge kas tulemi hindajad olid pimendatud (4 RCT)

t. Tau2 = 0,00; Chi2 = 7,64; df = 7; p = 0,37; I2 = 8%

u. Meta-analüüsi koostajad hinnanud kaasatud uuringute kvaliteet mõõdukaks

v. Tau2 = 0,02; Chi2 = 2,27; df = 2; p = 0,025; I2 = 28%

w. Meta-analüüsi koostajad hinnanud kaasatud uuringute kvaliteedi madalaks

x. Tau2 = 0,04; Chi2 = 3,80; df = 2; p = 0,15; I2 = 47%

y. Meta-analüüsi koostajad hinnanud nihke riski. Osades uuringutes on uuritavate rühmadesse jagamise pimendamine ebaselge (allocation concealment), ebaselge kas tulemite hindajad olid pimendatud, ebaselge kas oli kasutatud ravikavatsusanalüüsi (intention to treat)

z. Ühe uuringu valimi moodustasid ainult Hispaania pärituolu uuritavad

aa. Tau2 = 0,02; Chi2 = 2,27; df = 2; p = 0,25; I2 = 28%

ab. Meta-analüüsi koostajad hinnanud uuringute kvaliteeti madalaks

ac. Tau2 = 0,01; Chi2 = 4,49; df = 4; p = 0,34; I2 = 11%

ad. Meta-analüüsi koostajad hinnanud uuringute kvaliteeti. Kolmel uuringul mõõdukas ja kahel madal

ae. Tau2 = 0,00; Chi2 = 4,25; df = 4; p = 0,37; I2 = 6

af. Süstemaatilise ülevaate ja meta-analüüsi koostajad hinnanud uuringu kvaliteediks mõõdukas

ag. väike valim, lai usaldusvahemik

ah. Meta-analüüsi koostajad hinnanud kaasatud RCT-de kvaliteeti. Kolme kaasatud uuringu hinnang mõõdukas ja kolme kaasatud uuringu hinnang madal.

ai. Tau2 = 0,00; Chi2 = 0,01; df = 1, p = 0,93; I2 = 0%

aj. Meta-analüüsi koostajad hinnanud nihke riski. Osades uuringutes on uuritavate rühmadesse jagamise pimendamine ebaselge (allocation concealment), ebaselge kas ühes RCT-s oli kasutatud ravikavatsusanalüüsi (intention to treat), nihke risk ühes RCT-s tingituna pikast jälgimisperioodist (8 aastat)

ak. Tau2 = 0,00; Chi2 = 0,01; df = 1; p = 0,93; I2 = 0%

al. Al-Shookri 2012 MNT vs toitumisalane tavaravi, Anderson-Loftin 2005 LF vs tavaravi/kontroll/diabeedi alane õpe, Andrews 2011 toitumisalane nõustamine vastavalt UK juhendile vs tavaravi, Azadbakht 2011 LF/DASH vs kontroll, Barnard 2009 LF vegan vs ADA juhend, Bowen 2016 kohandatud taldrikureegel & SV lugemise grupinõustamine vs kontroll, Carter 2016 HP/LF vs toiduenergia vähendamine, Cheskin 2008 portsjonit kontrolliv toidu asendamine vs ADA juhend, Coppell 2010 Euroopa diabeedijuhend vs kontrol/meditsiiniline vaatlus, Daly 2006 LC vs

tasakaalustatud toitumine, Dyson 2007 LC vs tasakaalustatu toitumine UK juhend, Elhayany 2010 LC Vahemere vs ADA 2003 juhend, Elhayany 2010 traditsiooniline Vahemere vs ADA 2003, Evangelista 2009 HP vs AHA tavadieet, Evangelista 2009 tavaline valgusisaldus vs AHA tavadieet, Foster 2009 portsjonit kontrolliv dieet vs diebeedi alane õpe ja tugi, Franz 1995 MNT vs toitumisalane tavaravi, Gannon 2004 HP vs ADA & AHA dieet, Gannon 2003 HP ADA & AHA dieet

am. Goday 2016 VLC ketogeenne vs ADA madal kaloraaž, Goldstein 2011 LC vs ADA piiratud kaloraaž, Imai 2011 "juurvili enne SV" vs vahetusel põhinev toitumine, Itsiopoilos 2011 Vahemere vs tavatoitumine/kontroll, Jönsson 2009 Paleo vs diabeedi dieet, Jung 2014 traditsiooniline Korea vs kontroll, Kahleova 2011 taimetoitlus vs diabeedi dieet/kontroll, Kaplan 1987 vahetusel põhinev dieet vs kontroll, Kattelmann 2010 toitumisalane õpe vs ADA, Kondo 2014 kalal põhinev vs kontroll, Koo 2010 LF & madal kaloraaž vs kontroll, Laitinen 1993 intensiivne toitumisalane õpe vs tavaravi/terviseõpetus, Li 2016 LF & kõrge kiudainesisaldusega vs tavaravi, Liu 2015 toituminalane sekkumine vs tavaravi, Luger 2013 HP vs tavaline dieet, Ma 2008 madal GI vs ADA, Mesci 2010 lihtsaid SV piirav toitumine vs diabeedi diabeet, Miller 2002 toitumisalane õpe vs kontroll, Muchiri 2016 toitumisalane õpe vs tavaravi, O´Neill 2016 Kaalujälgijad vs madal kaloraaž & kõrge kiudainetesisaldus

an. Nicholson 1999 LC & taimetoitlus vs kontroll, Nuttall 2008 HP vs AHA, Pedersen 2007 portsjoni kontroll vs toitumisalane tavaravi, Pi-Sunyer 1999 toidu asendamine vs ADA & vahetamine, Rock 2014 LF vs tavaravi, Rock 2014 LC vs tavaravi, Saslow 2017 Ketogeenne vs ADA taldrikureegel, Sato LC vs Jaapani diabeediliidu kaloraaži vähendamisel põhinev, Shirai 2013 madala kaloraažiga & osaliselt toidu asendamine vs madala kaloraažiga, Talib 1997 grupipõhine toitumisalane nõustamine vs diabeedialane õpe, Trico 2016 HP & HF enne vs vähene kaloraaži vähendamine, Visek 2014 madal GI vs diabeedi dieet, Williams 1998 väga madala kaloraažiga dieet (1 päev) vs käitumisteraapia, Wiliams 1998 väga madala kaloraažiga dieet vs käitumisteraapia, Yamada 2014 LC vs madala kaloraažiga dieet, Yang 2017 toitumisalane õpe vs Korea diabeedialane õpe, Yip 2001 vedel toidu asendamine vs ADA vahetus, Yusof 2009 madal GI vs tavaline vahetus, Ziemer 2003 vs vahetus

ao. Cradock (2017) Diet Behavior Change Techniquesin Type 2 Diabetes: A SystematicReview and Meta-analysis

ap. Süstemaatilise ülevaate ja meta-analüüsi koostajate poolt hinnatud nihke riski. Nihke risk valdavalt ebaselge "unclear"

aq. Tau2 = 0,04; Chi2 = 124,40; df = 58; p < 0,001 I2 = 53%

ar. Tau2 = 0,05; Chi2 = 88,94; df = 34, p < 0,001; I2 = 62%

as. Tau2 = 0,03; Chi2 = 45,01; df = 25; p = 0,008; I2 = 44%

at. Tau2 = 0,02; Chi2 = 24,04; df = 15; p = 0,06; I2 = 38%

au. Tau2 = 0,19; Chi2 = 12,35; df = 4; p = 0,01; I2 = 68%

av. Tau2 = 3,27; Chi2 = 486,26; df = 53; p < 0,001; I2 = 89%

aw. Tau2 = 2,56; Chi2 = 203,73; df = 32; p < 0,001; I2 = 84%

ax. Tau2 = 4,74; Chi2 = 319,17; df = 23; p < 0,001; I2 = 93%

ay. Tau2 = 3,15; Chi2 = 110,87; df = 13; p < 0,001; I2 = 88%

az. Tau2 = 0,41; Chi2 = 4,10; df = 3; p = 0,25; I2 = 27%

ba. Tau2 = 0,00; Chi2 = 2,94; df = 8; p = 0,94; I2 = 0%

bb. Tau2 = 0,09; Chi2 = 45,02; df = 15; p = < 0,001; I2 = 67%

bc. Tau2 = 0,23; Chi2 = 17,17; df = 4; p = 0,002; I2 = 77%

bd. Tau2 = 0,07; Chi2 = 6,70; df = 3; p = 0,08; I2 = 55%

be. Tau2 = 0,00; Chi2 = 0,64; df = 2; p = 0,73; I2 = 0%

bf. Ptaszynska A, Johnsson KM, Parikh SJ, de Bruin TW, Apanovitch AM, List JF. Safety profile of dapagliflozin for type 2 diabetes: pooled analysis of clinical studies for overall safety and rare events. Drug Saf. 2014 Oct;37(10):815-29

bg. Monotherapy = NCT00528372, Low-dose monotherapy = NCT00736879, Monotherapy phase II = NCT00263276, Monotherapy (Japan) = NCT00972244

bh. pole hinnatud

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