

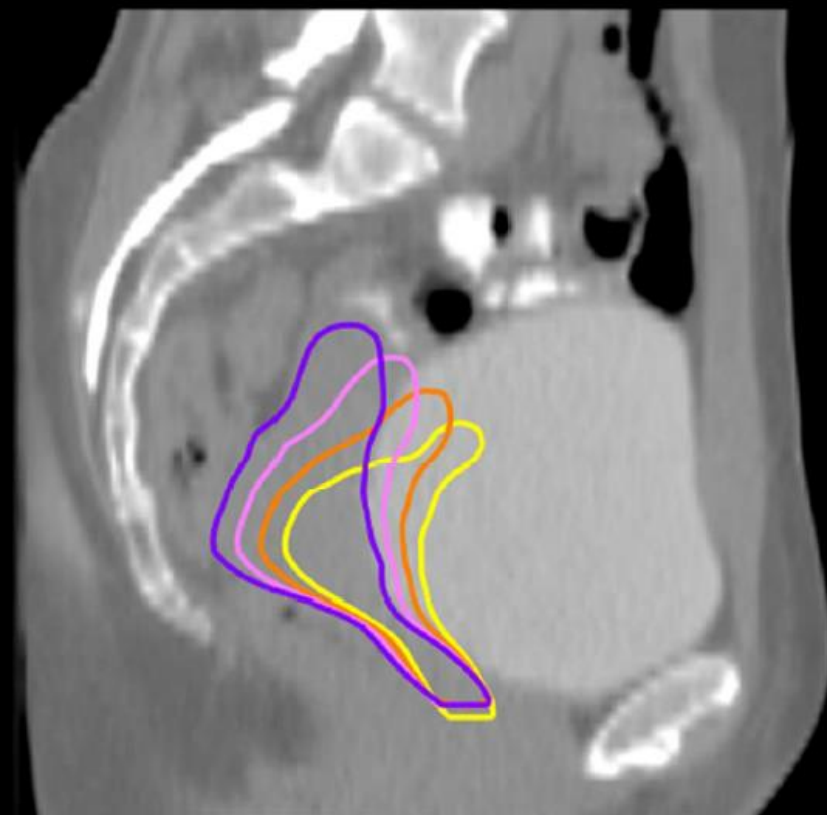
Cervix plan van de dag

CBCT kwaliteit en DL intekenen op CBCT

Yvonne de Hond, promovenda, Catharina Ziekenhuis

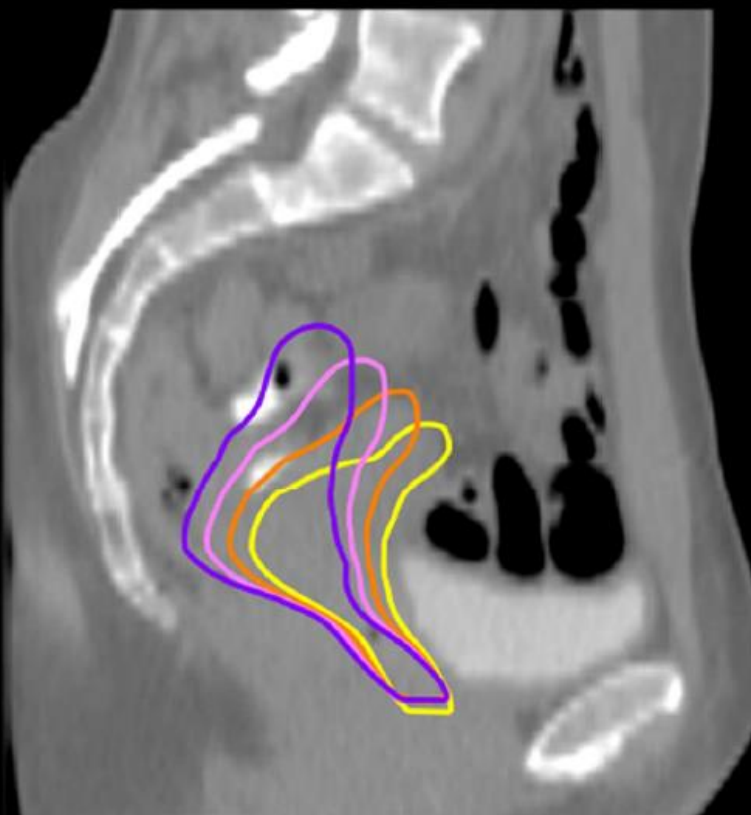
Gedreven
door het
leven.

Plan van de dag selectie



Full bladder

pCT

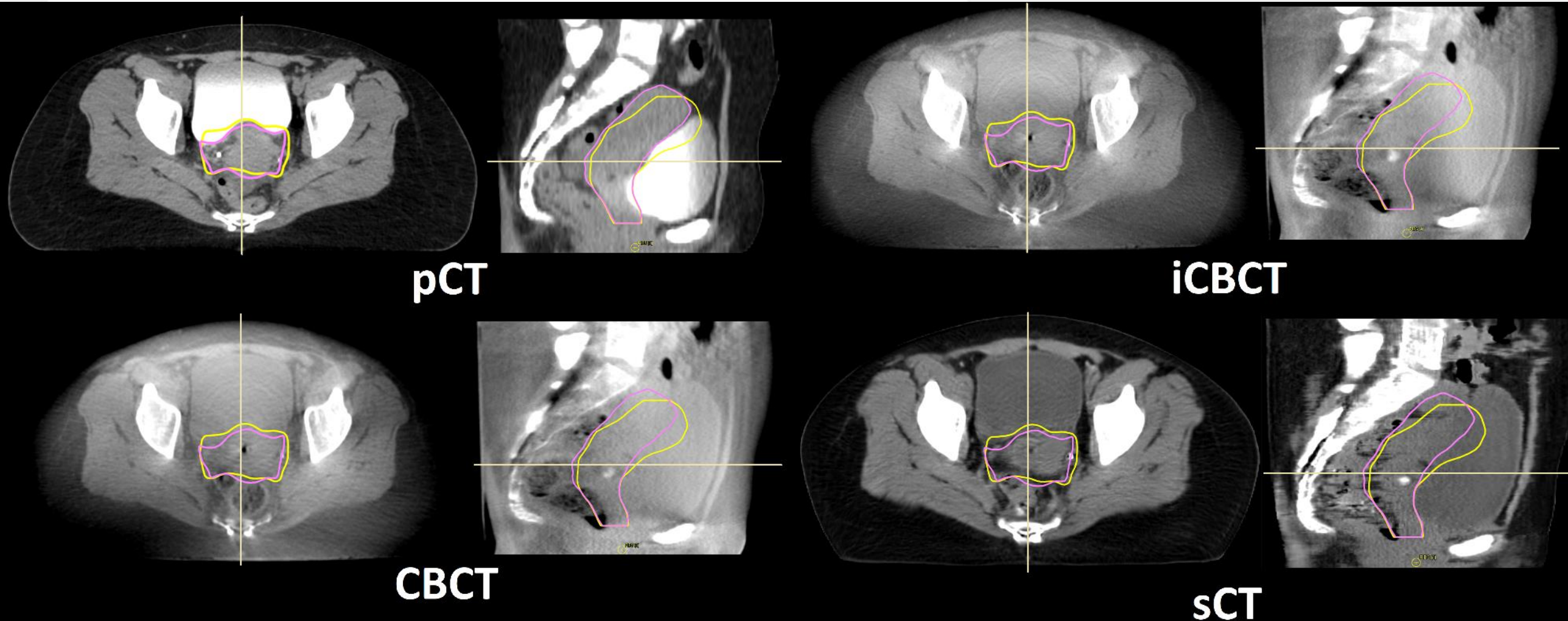


Empty bladder



CBCT

Beeldsoorten

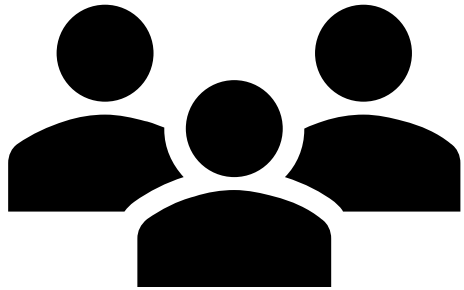


Vraagstelling

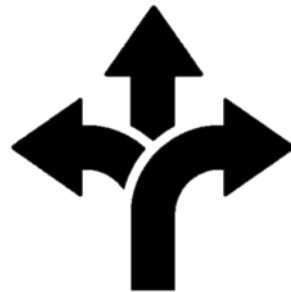
- Wat is de invloed van deze beeld kwaliteit verbeteringstechnieken op de inter-observer variatie in plan selectie?



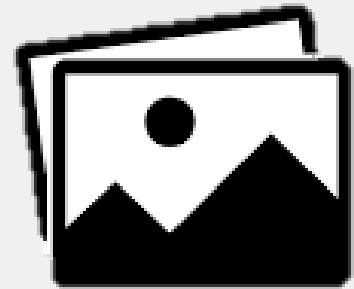
Opzet studie



Team van 6 mensen

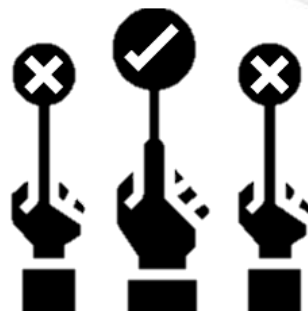


Afzonderlijk plan gekozen

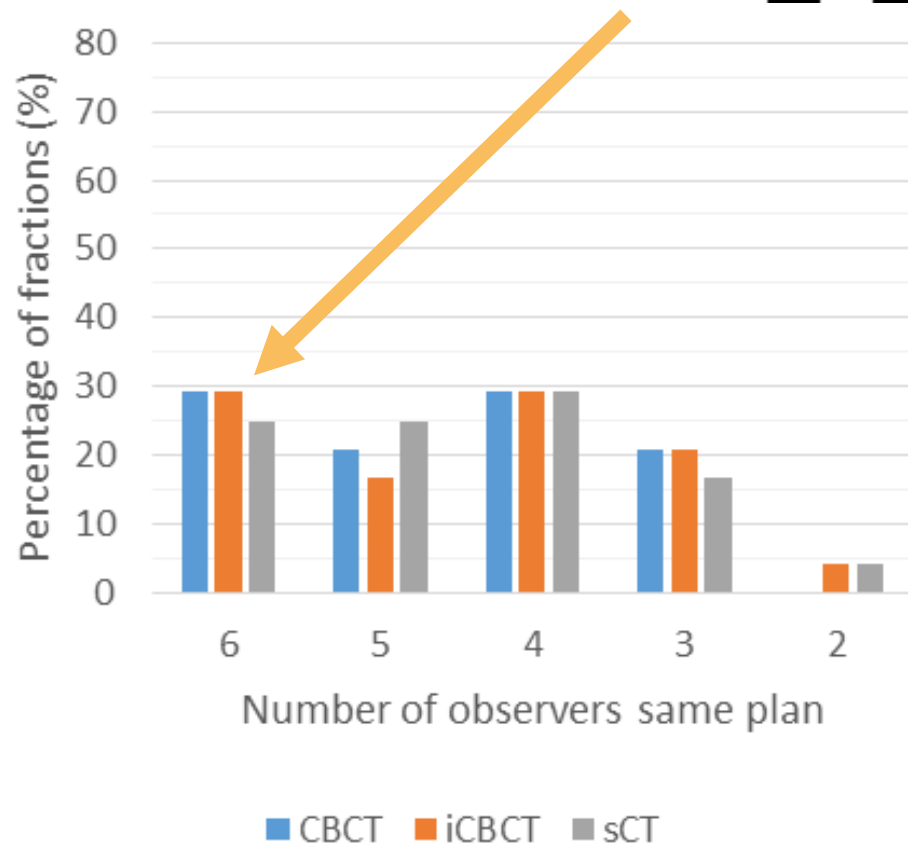


Op verschillende type beelden

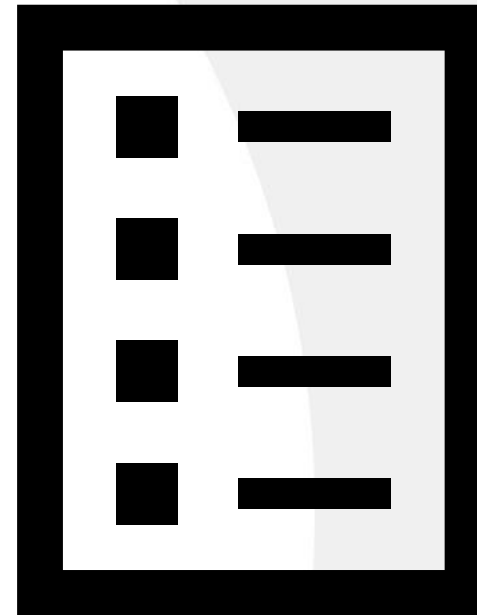
Plan selectie



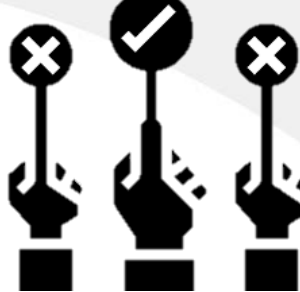
First Round



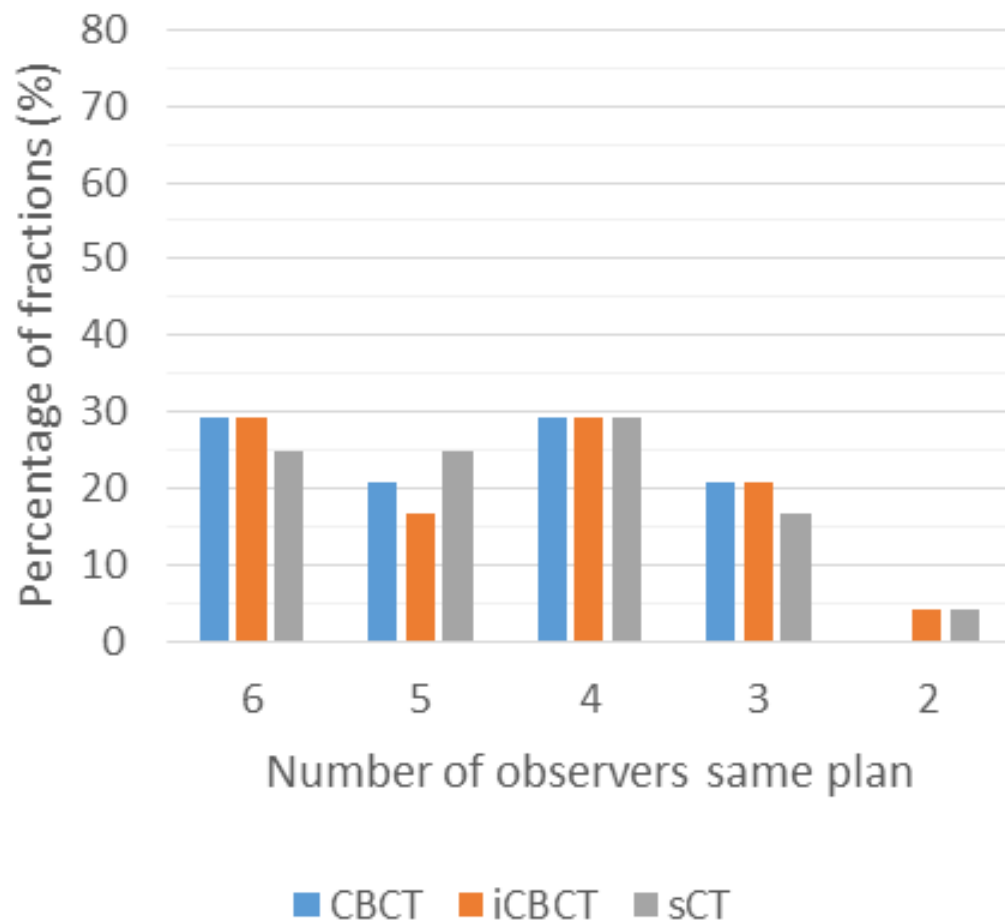
Richtlijnen



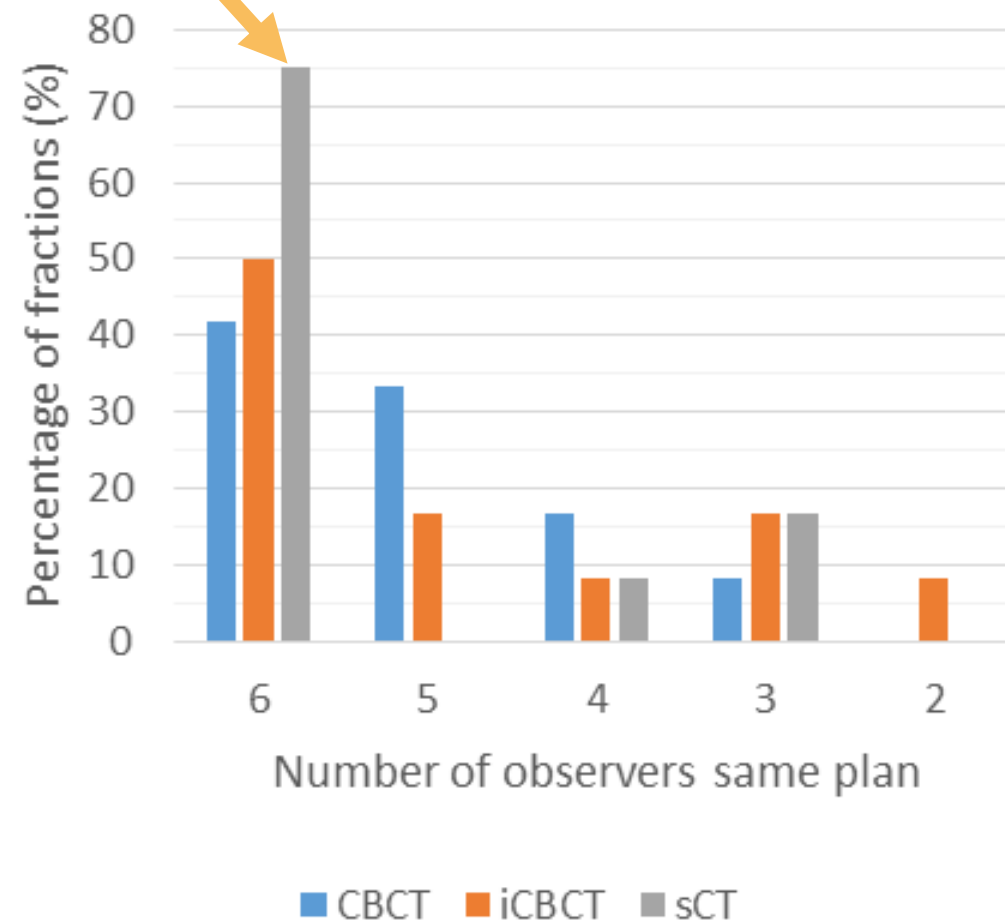
After guidelines



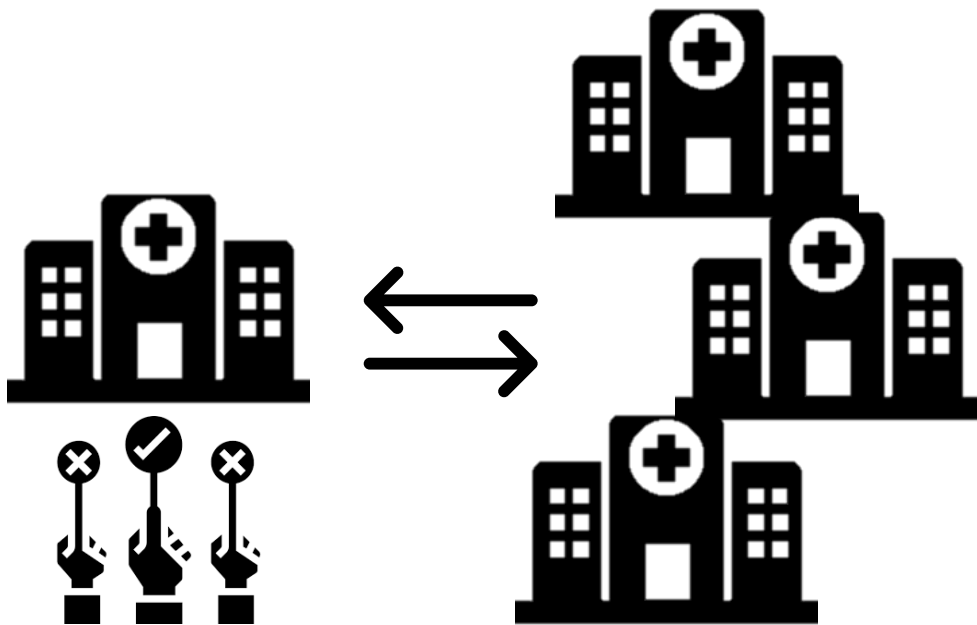
First Round



Second Round



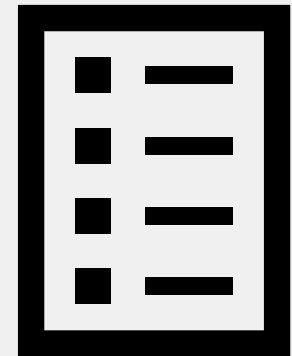
Inter-observer variatie



Verschil plan keuze

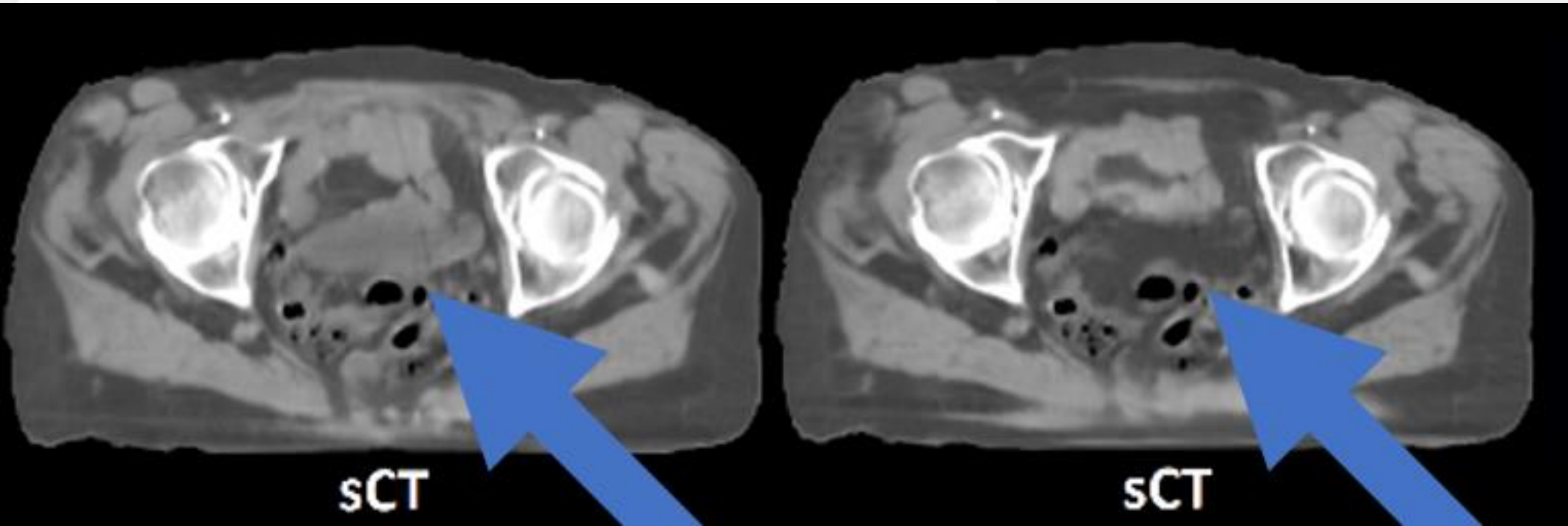


Beeldkwaliteit



richtlijnen

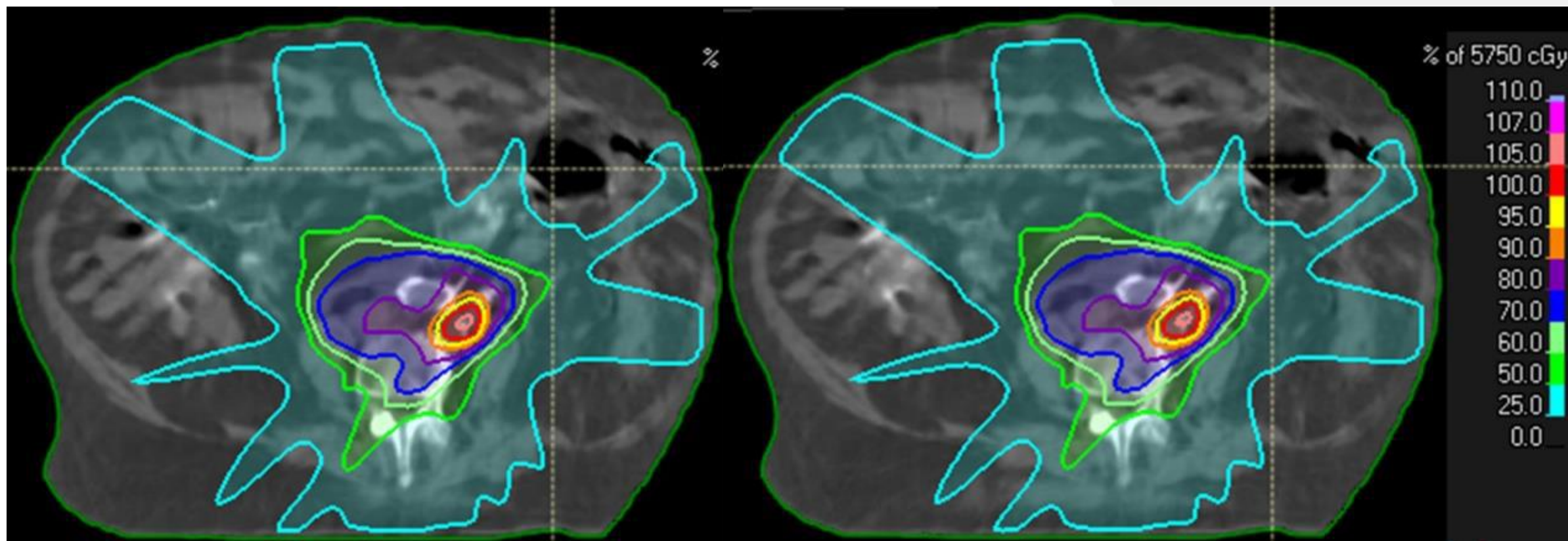
Anatomische verschillen sCT



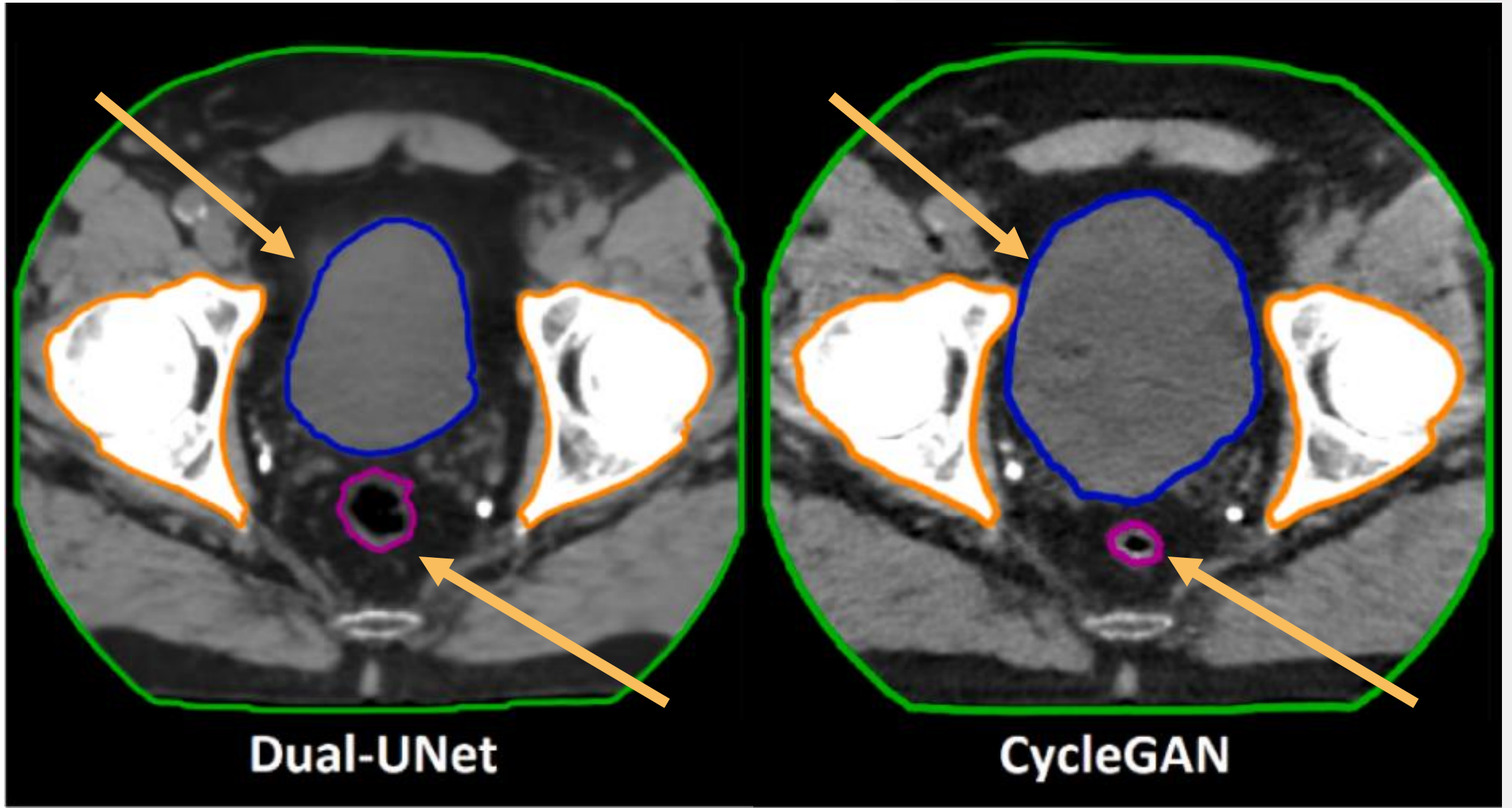
Invloed anatomische verschillen in sCT op de dosisberekening



- Voorbeeld: -641 HU tov -410 HU
- Dosis verschillen < 3% van de voorgeschreven dosis (25x230 cGy)



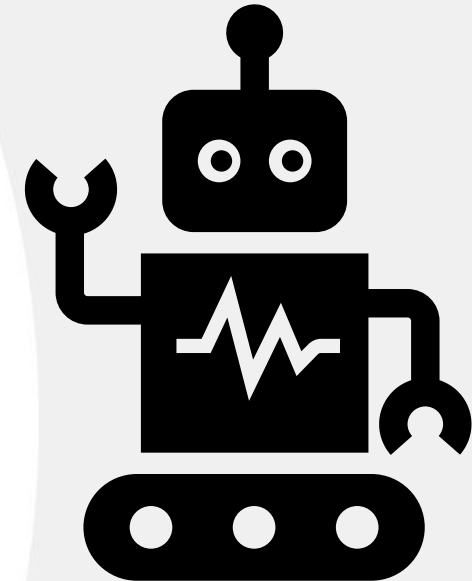
sCT kan invloed hebben op intekeningen

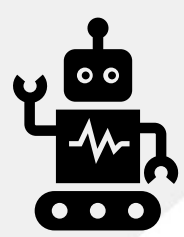


Inter-observer variatie verkleinen



- Ipv sCT gebruiken om beeldkwaliteit te verbeteren
- Automatische plan selectie op CBCT

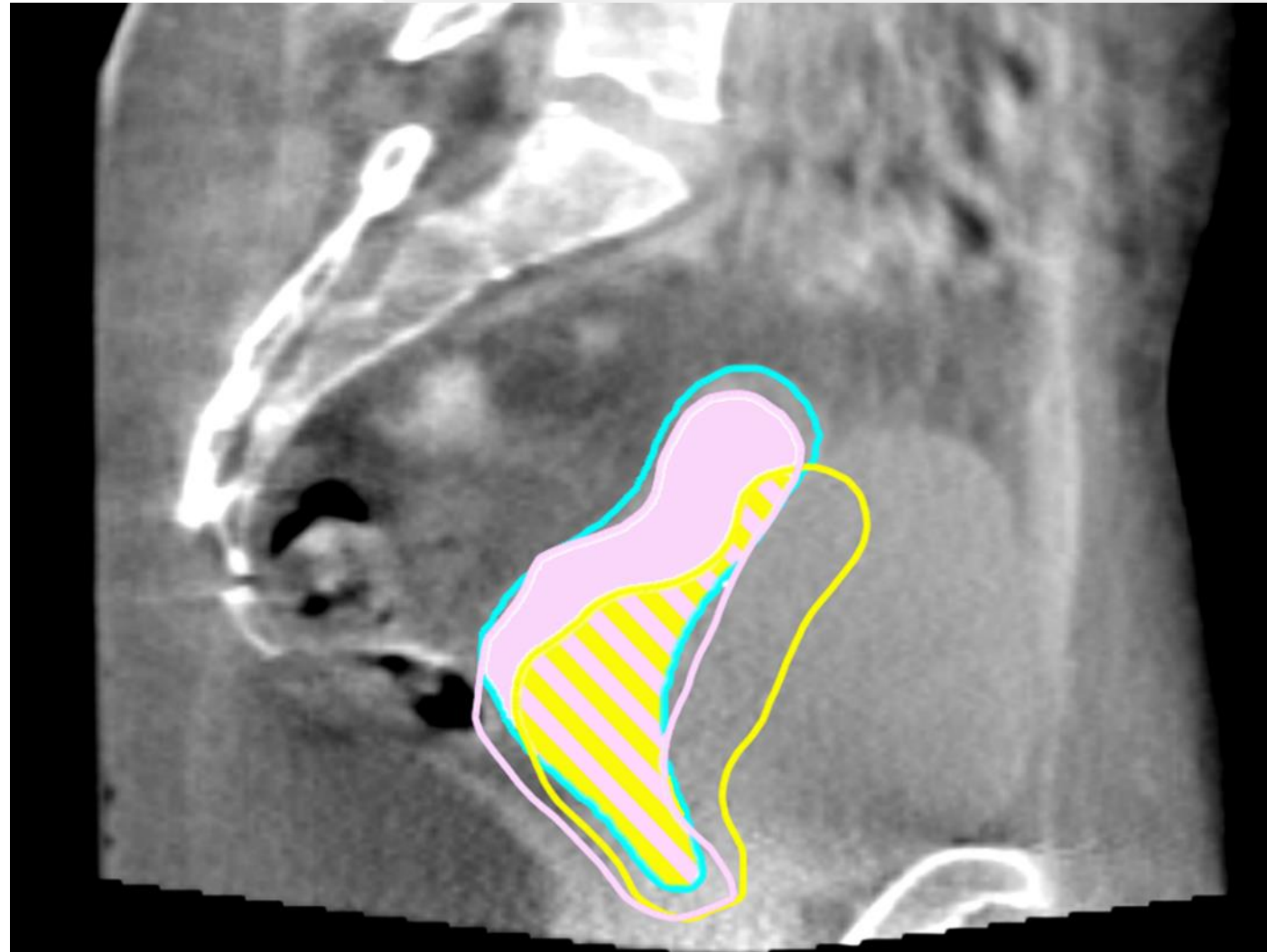




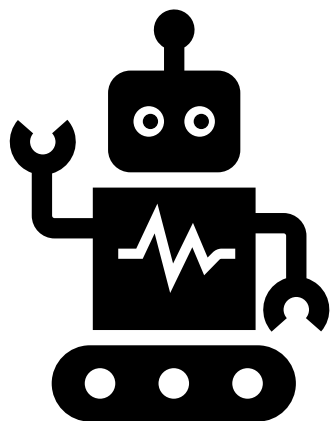
Automatische selectie



- Auto-segmentatie CTV op CBCT
- CTV van LoP plannen
- Hoogste coverage



Plan keuze methodes



Automatische selectie

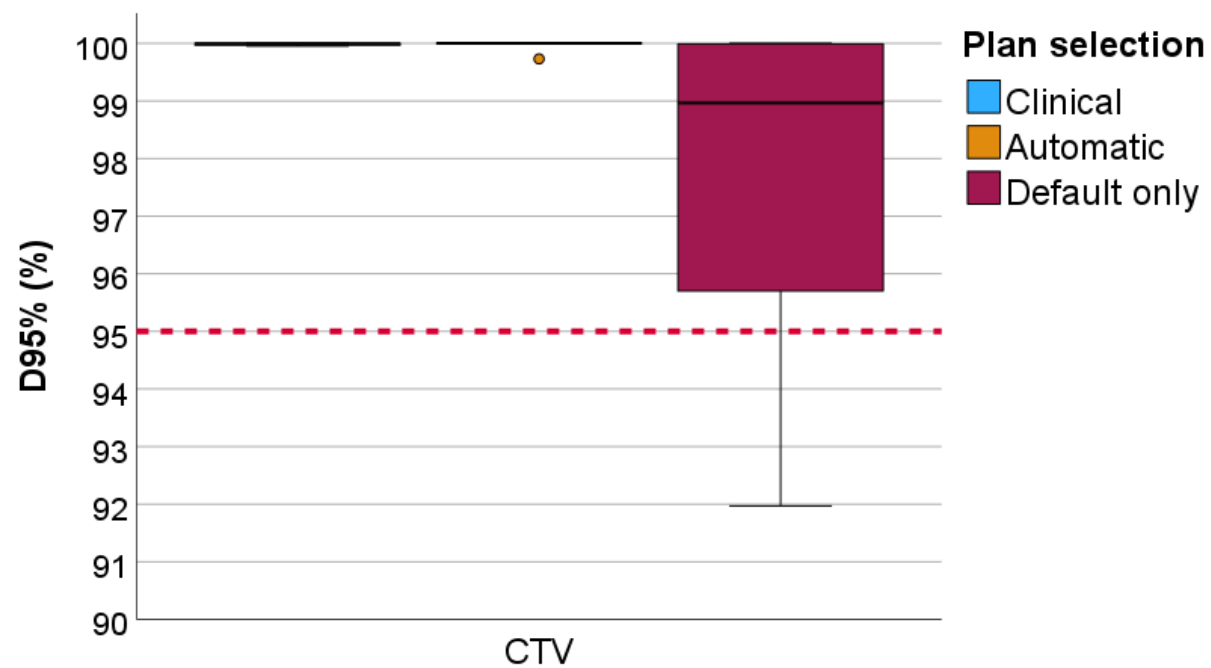
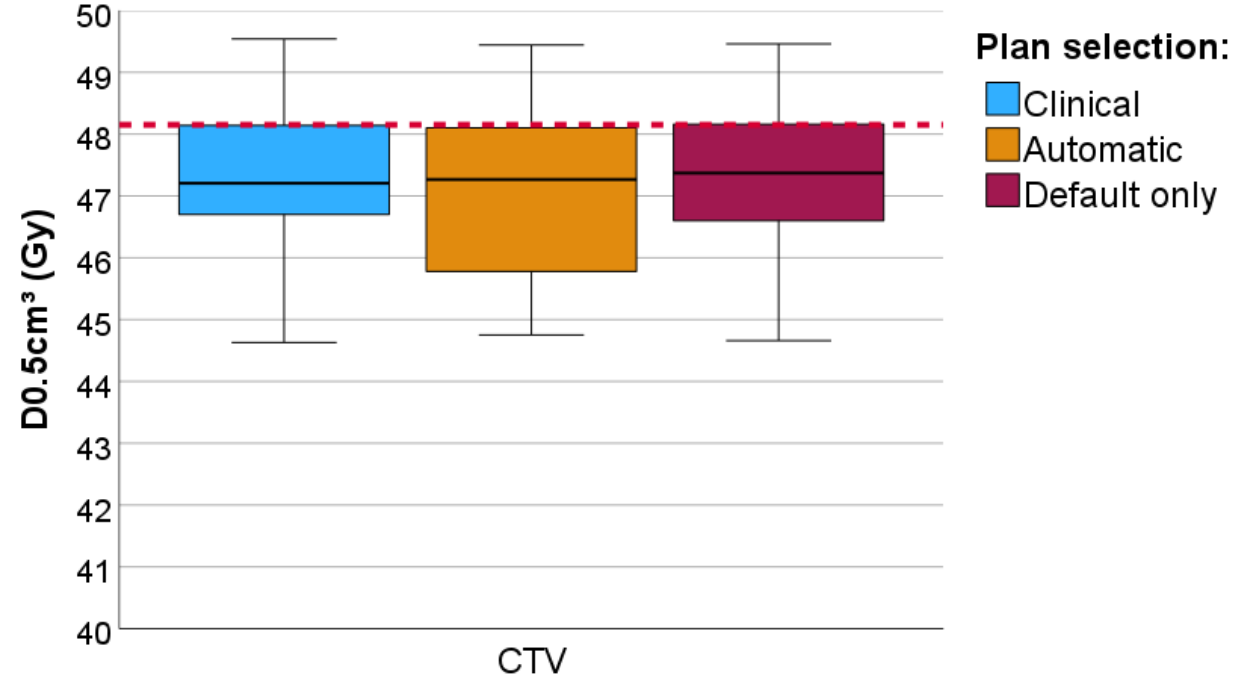


Klinische keuze

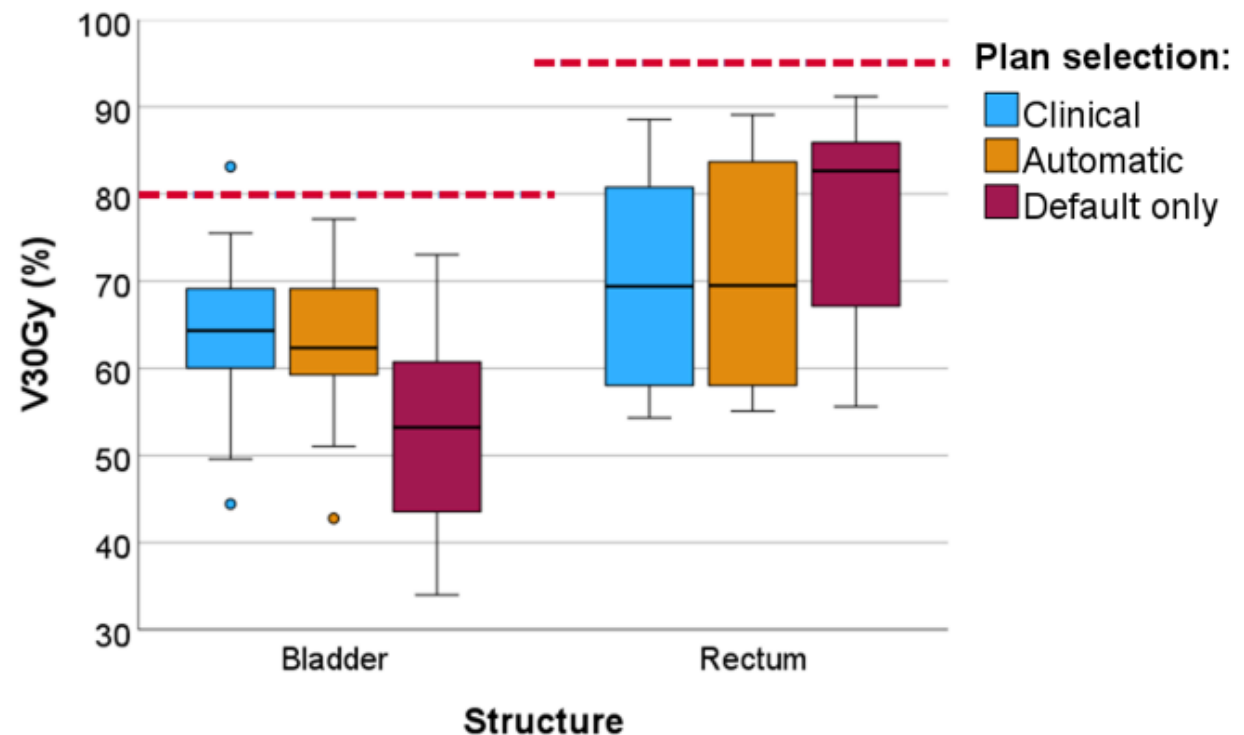
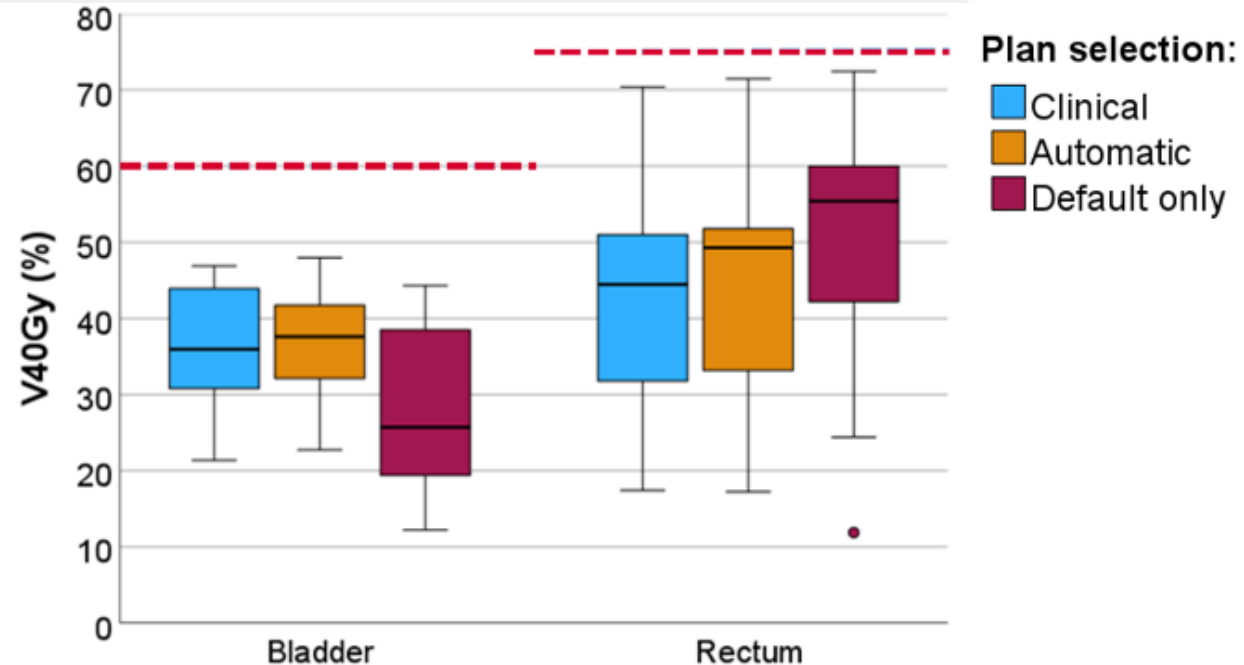
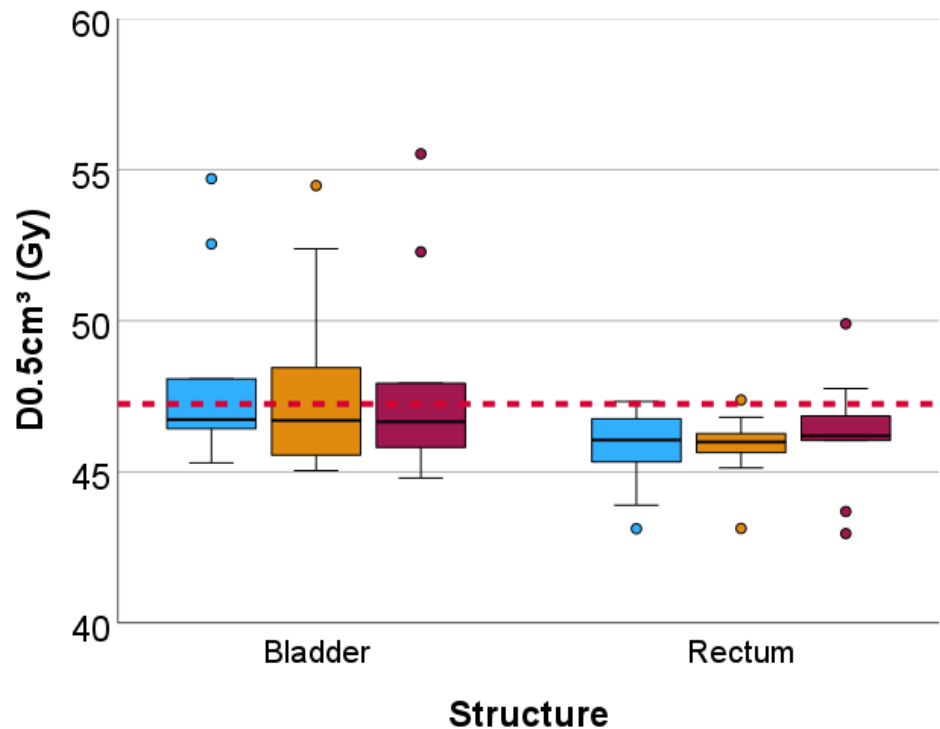


Volle blaas plan

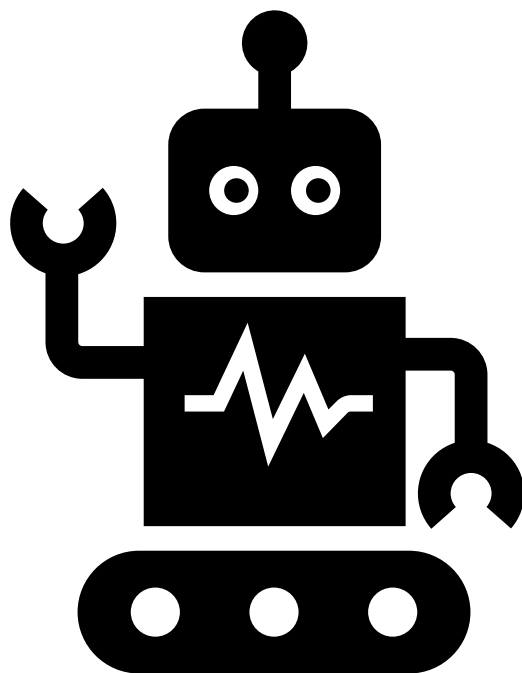
Resultaten: Dose in CTV



Resultaten: Organs at risk



Hoe vaak ander plan in 25 fracties



Automatische selectie



Klinische keuze



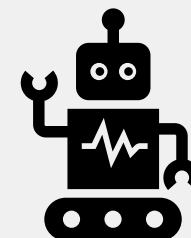
Volle blaas plan

Mediaan: 8 fracties
Range: 2-12 fracties

Mediaan: 4 fracties
Range: 0-22 fracties

Conclusie

- We selecteren vrij goed een plan maar nog steeds verschillen in plan keuze
 - Verbetering na richtlijnen en verbeterde beeldkwaliteit dmv sCT
- Anatomie op sCT kan anders zijn dan op CBCT
 - Weinig invloed op dosis
 - Maar mogelijk wel op intekening
- Automatische plan selectie op CBCT geen verschil in dosis tov klinische selectie
- Soms ander plan kiezen geen invloed op dosis bij 25 fracties
- Plan selectie belangrijk
 - Ondanks drink protocol om volle blaas na te bootsen
 - Alleen volle blaas plan kiezen resulteert in onderdosis in het CTV en overdosis in het rectum





**Gedreven
door het
leven.**