



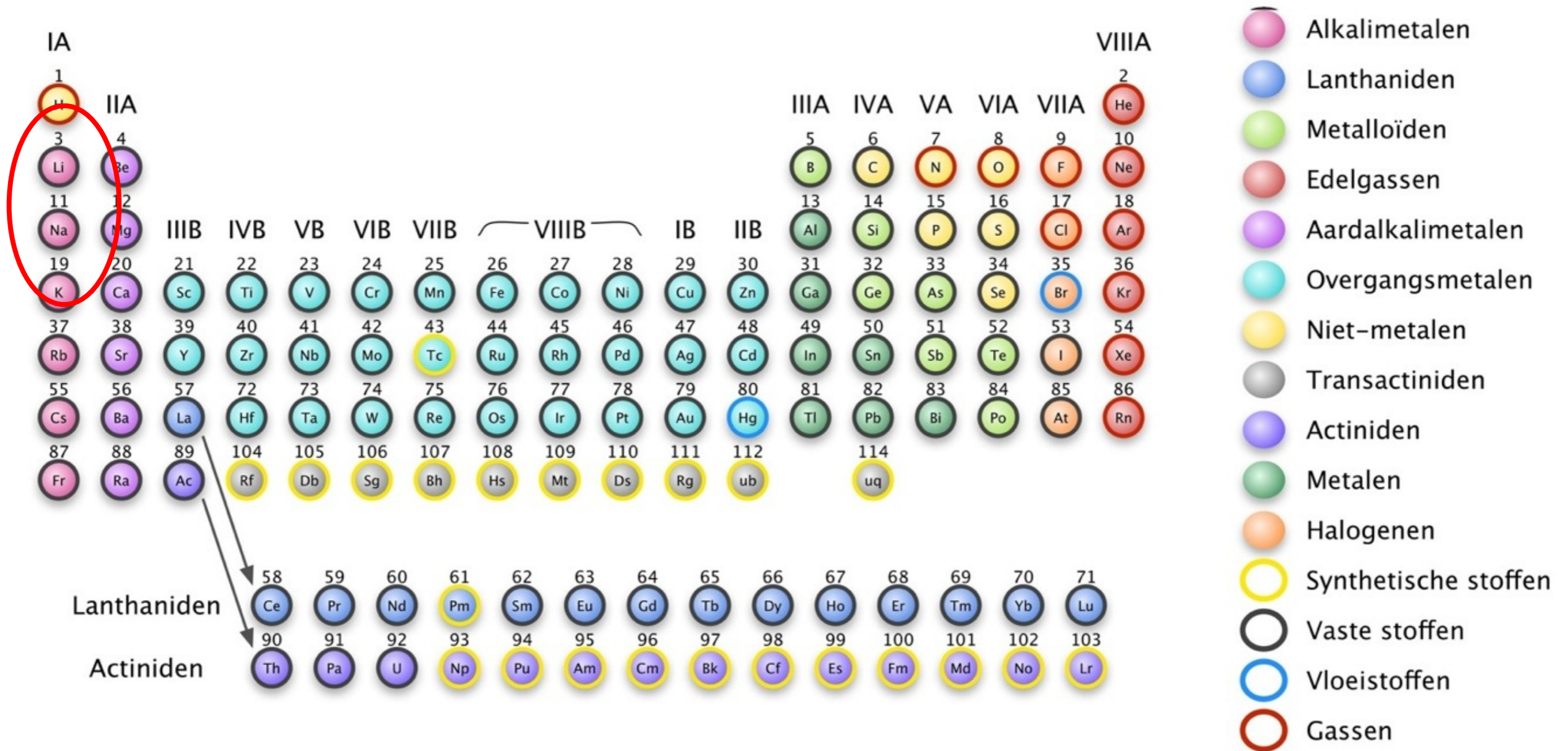
# *inhoud*

hantering van lithium door de nier  
lithium-nefrotoxiciteit

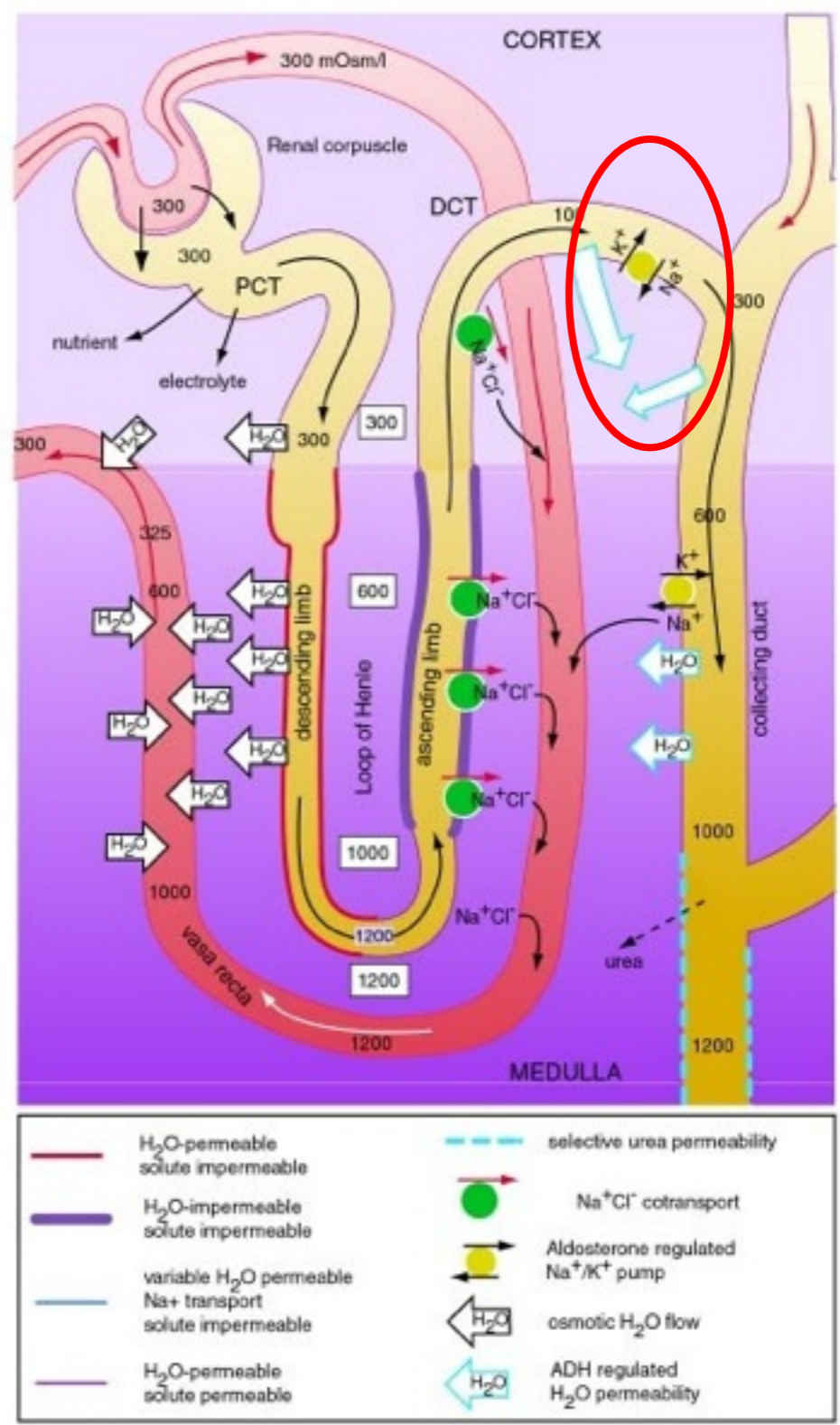
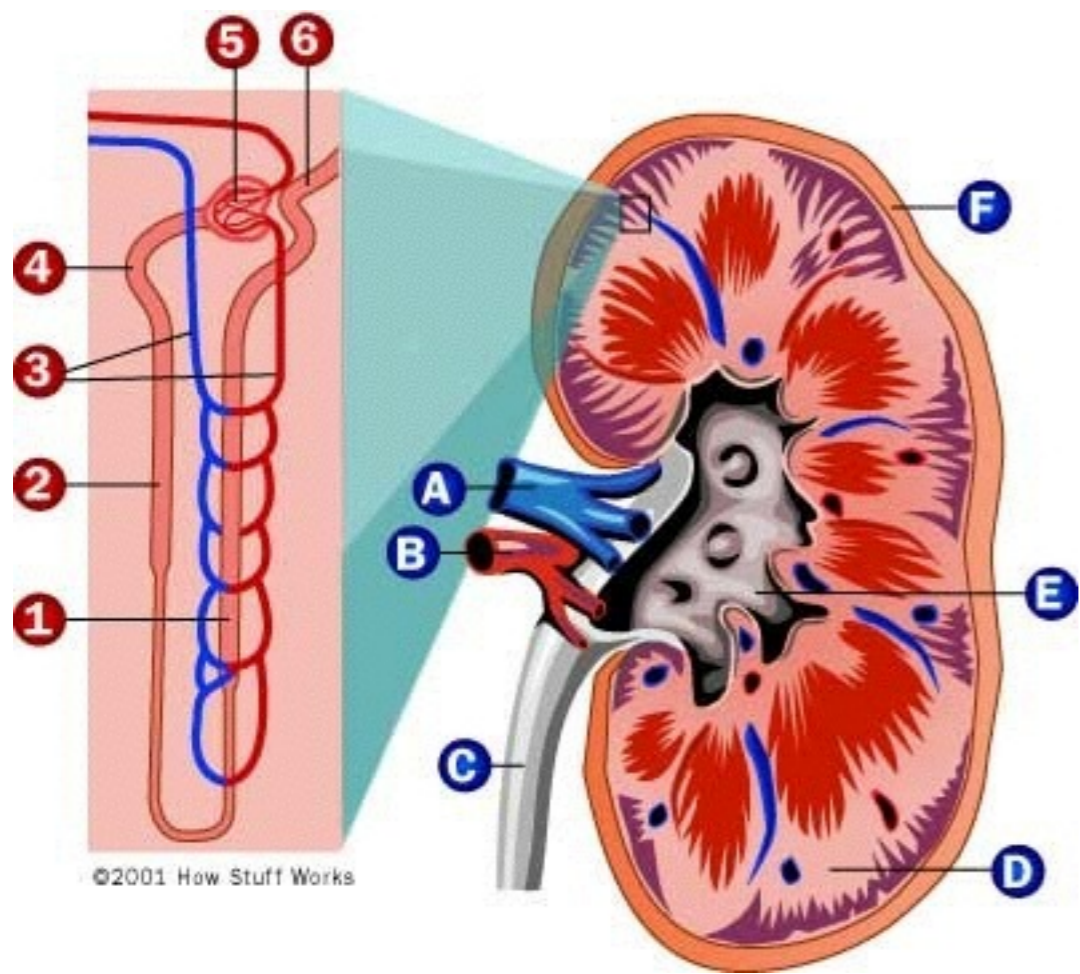
biPolar Consortium, eerste resultaten

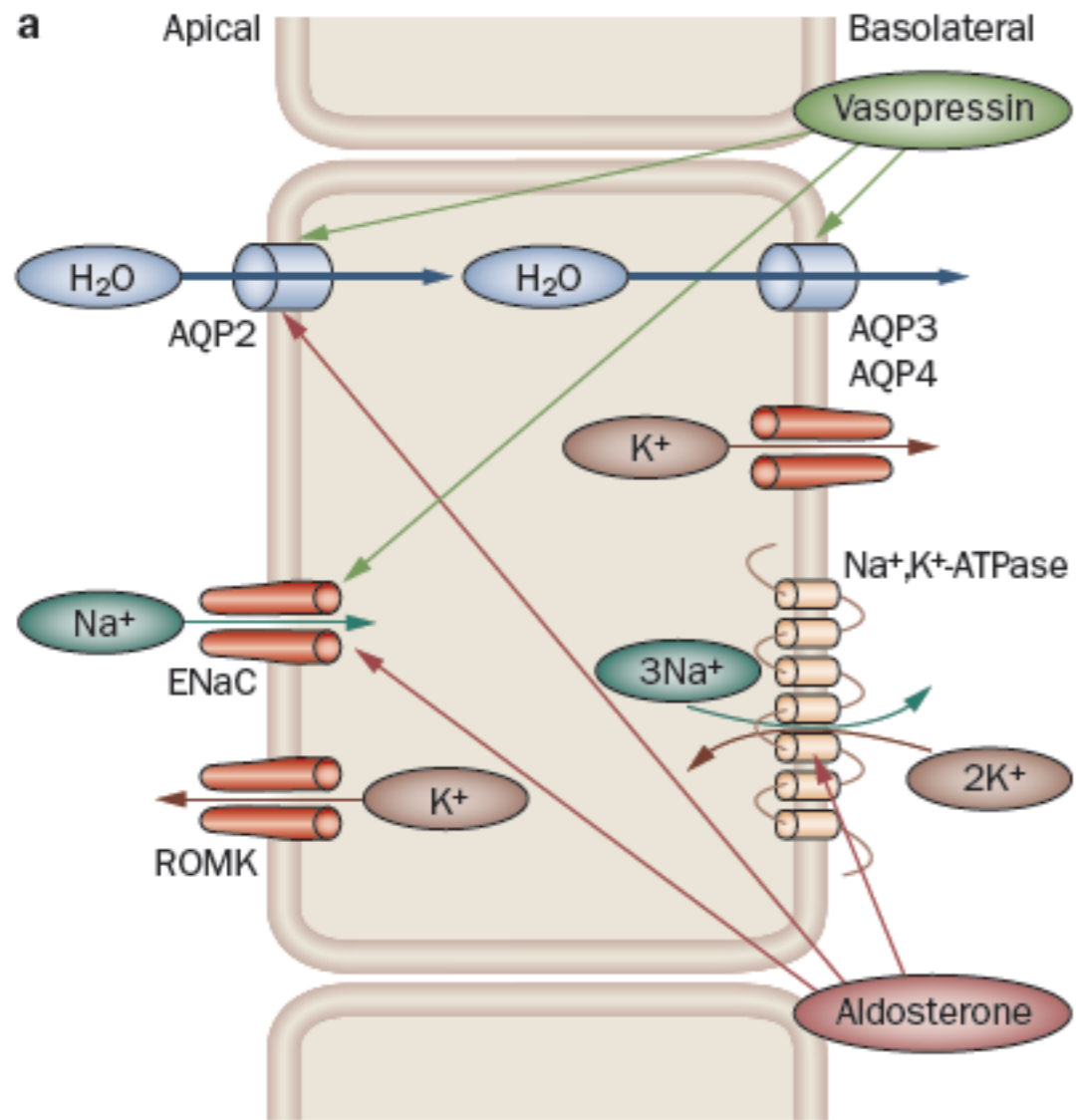
**kan nierschade door lithium  
worden voorkomen?**

# Periodiek Systeem









# *Lithium Nefrotoxiciteit*

Nefrogene diabetes insipidus (NDI)

Chronische nefrotoxiciteit

Directe glomerulaire beschadiging

Acute Intoxicatie

## *Lithium - Nefrogene diabetes insipidus (NDI)*

- 20%-40% van de lithium gebruikers
- meest frequente NDI
  
- Twee stadia
  - korte termijn: AQP2 downregulation
  - lange termijn: decrease RCD principal cells

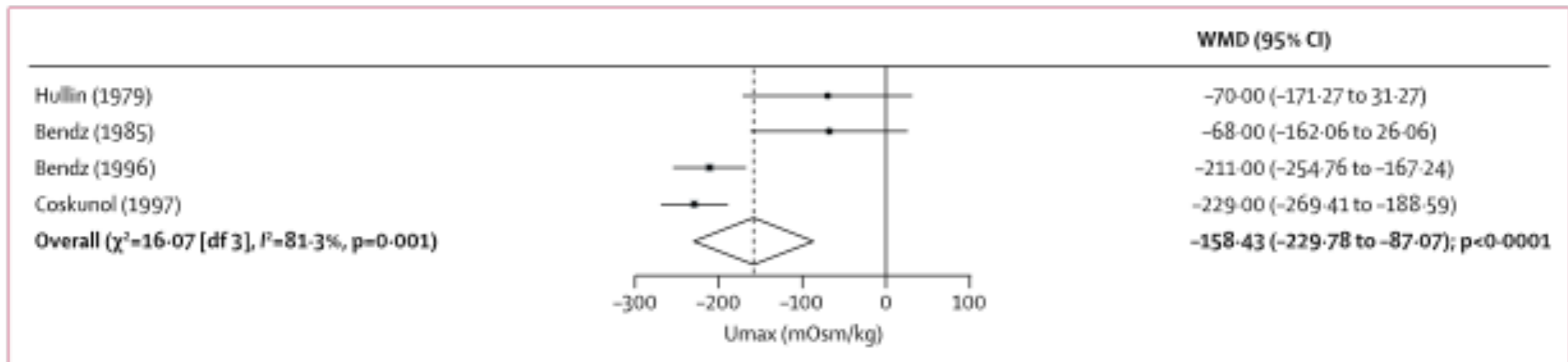


Figure 3: Meta-analysis of case-control studies comparing maximum urinary concentrating ability (Umax) in patients given lithium versus control. Weights are from random-effects analysis. The webappendix provides the references for the included studies. WMD=weighted mean difference.





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groningen



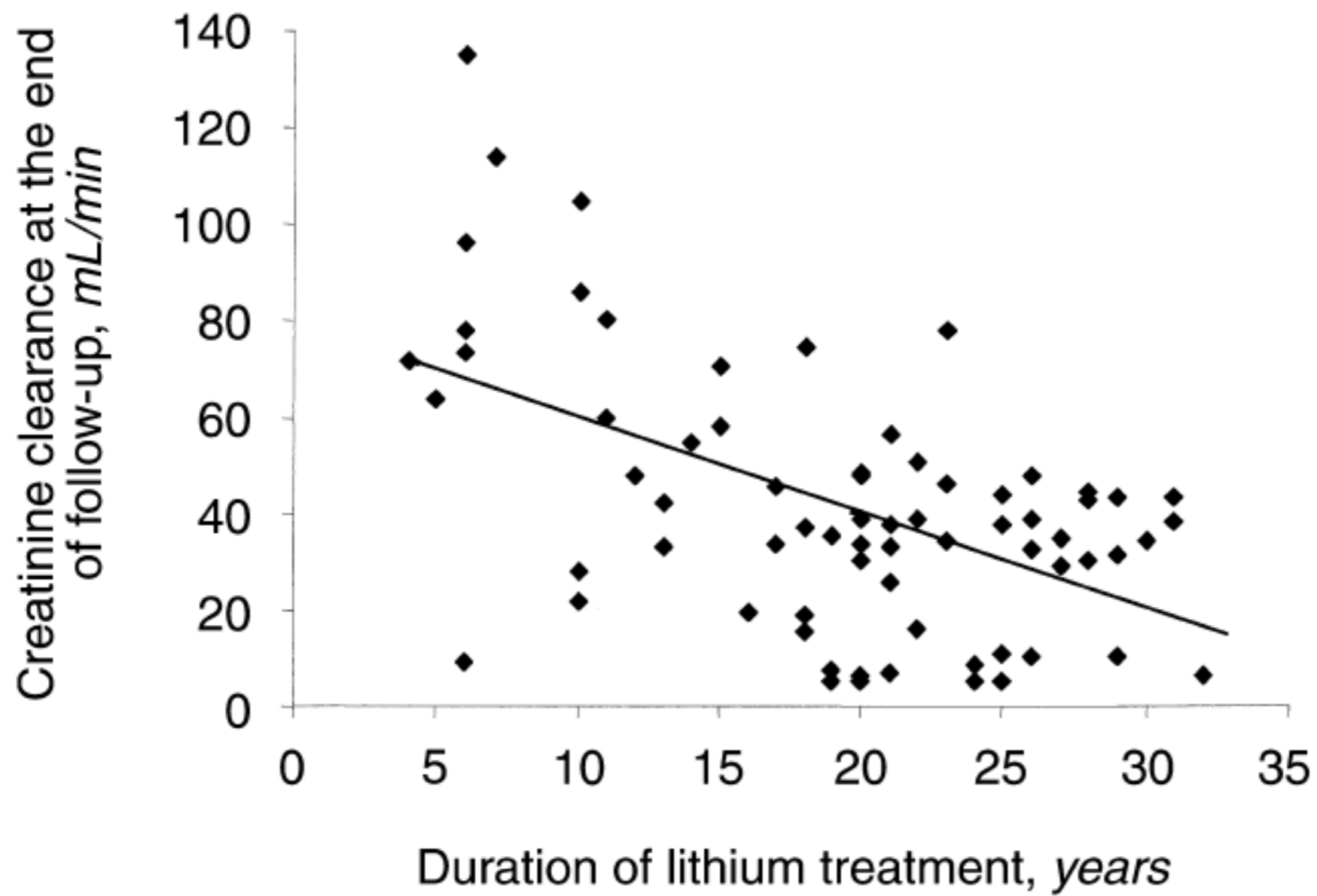
University Medical Center Groningen

## *Chronische nefrotoxiciteit*

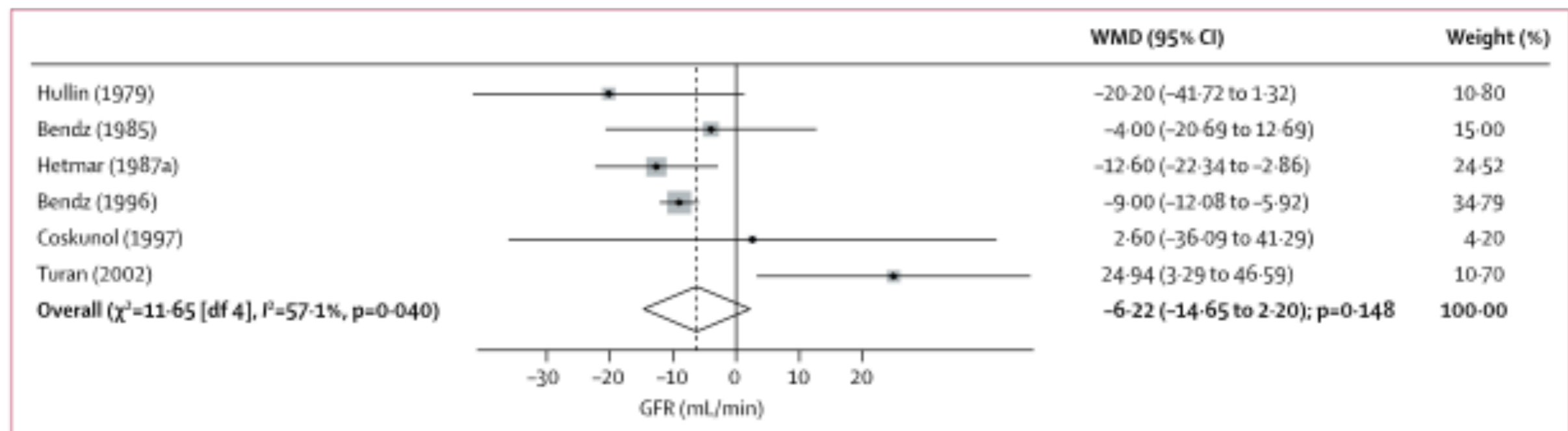
- langdurig lithium gebruik, 10- 20 jaar
  - 15-20% daling tot 40 ml/min (creat 200)
  - zelden ESRD
  - ESRD na 20 jaar lithium gebruik
  - vaak ook bijkomende andere oorzaak
- \* staken lithium : onvoorspelbaar

# *Hoe vaak komt het voor?*

- Bendz 1983, 1994, 2010
  - na 6 jaar ontwikkelt 10% creatinine stijging
  - na 12 jaar ontwikkelt 20 % creatinine stijging
  - 18/3369 ESRD
- Presne
  - 2-7 per 1000 dialyse patienten







**Figure 2: Meta-analysis of case-control studies comparing glomerular filtration rate (GFR) in patients given lithium versus control**  
 Weights are from random-effects analysis. The webappendix provides the references for the included studies. WMD=weighted mean difference.

# *preventie en behandeling*

- preventieve maatregelen:  
amiloride?
- behandeling NDI
- staken Lithium zivol?
  
- ondersteunende maatregelen
- noodzaak NVT te verwachten?

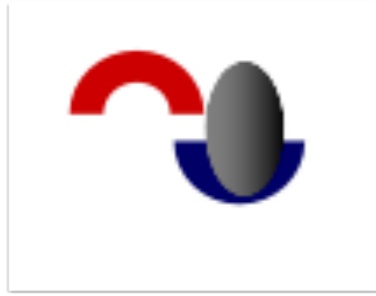
# *Hoe werkt amiloride?*

- amiloride blokkeert ENaC

# *Werkt amiloride?*

- verbetering Nefrogene diabetes insipidus (NDI)
- voorkomen nierfunctieverlies?





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