

# Intradialytic hypotension

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Are we getting used to it?

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# symptomatic Intradialytic hypotension - IDH

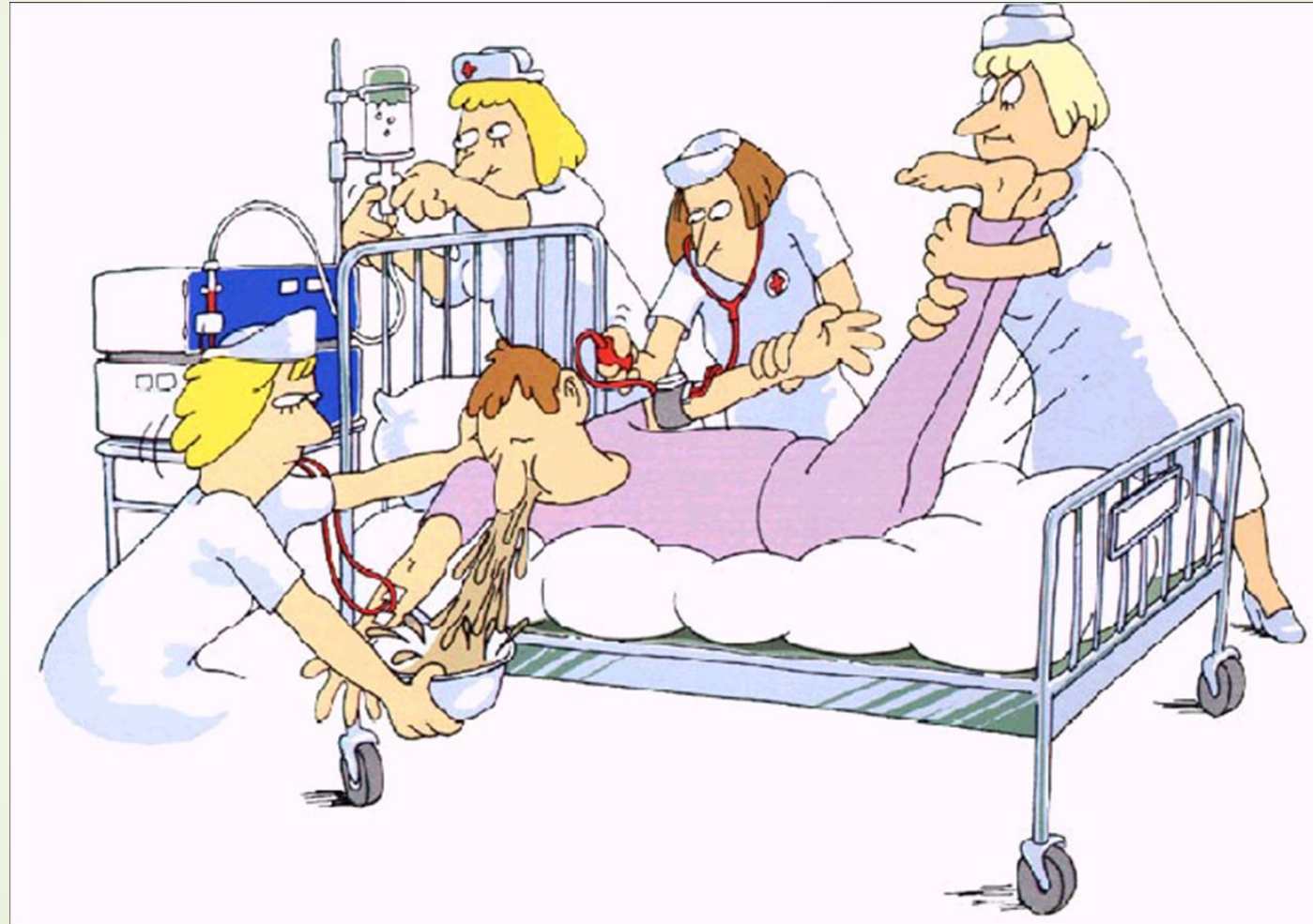


Figure 1. Haemodialysis patient vomiting. Adapted from 'Dijaliza', Oct 2013, retrieved from: <https://dijaliza.wordpress.com/2013/10/>.

# Potential consequences of IDH

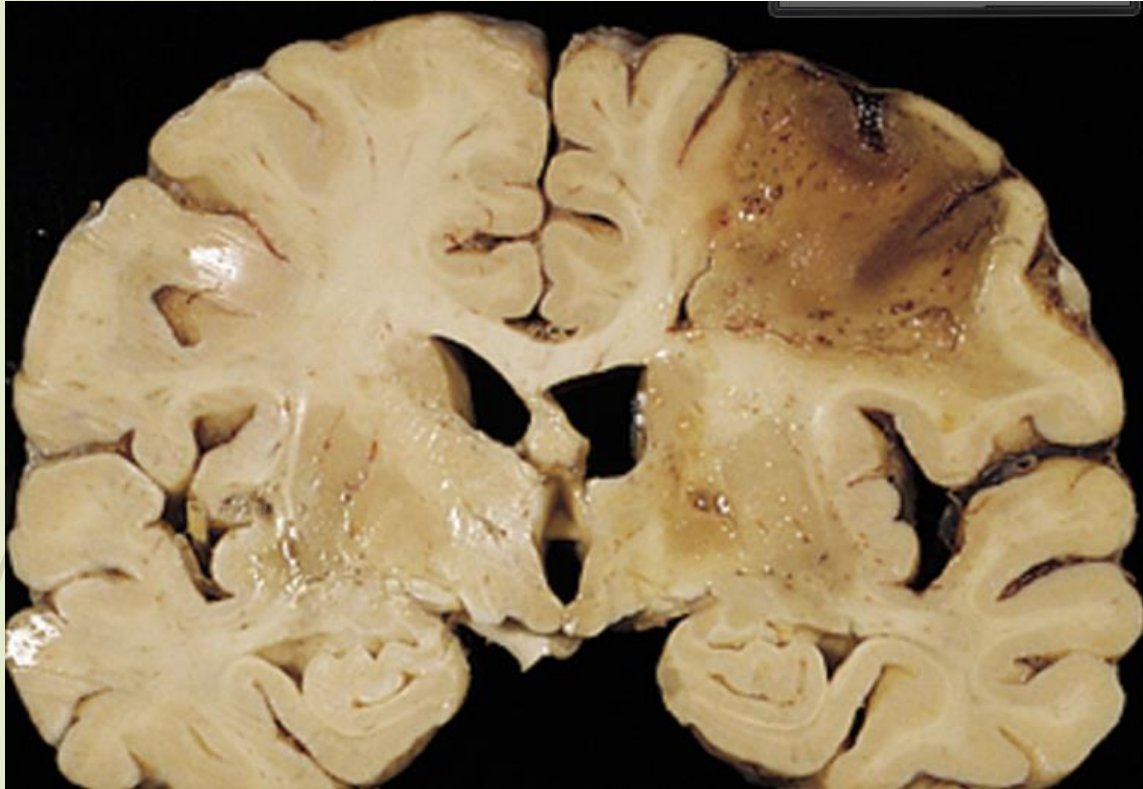
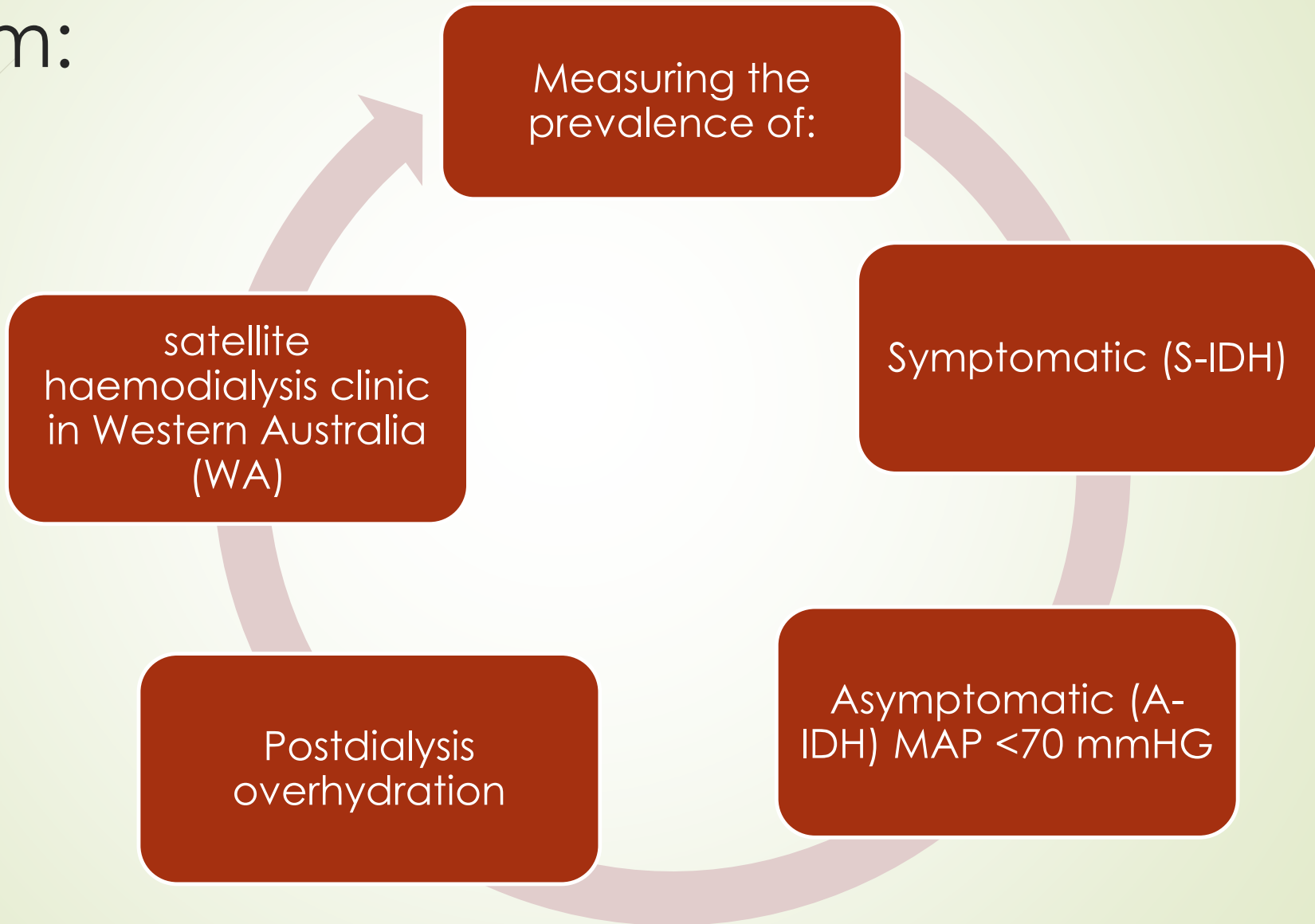


Figure2. pale infarct brain. Adapted from 'Neurology at University of Queensland', Aug 2012, retrieved from: <https://www.studyblue.com/notes/n/neurology/deck/3261345>.



Figure3. myocardial infarction. Adapted from 'Emedicine medscape', Jan 2017, retrieved from: <http://emedicine.medscape.com/article/155919-overview>.

Aim:





Methods:

# Observational Study

Satellite dialysis clinic (64 patients)

Retrospective 3 –month period

2357 HD sessions

nurse recorded fluid related adverse events



# Results:

Symptomatic hypotension (S-IDH) occurred during 221 sessions (9.4%)



Asymptomatic hypotension (A-IDH) occurred during 88 sessions (3.7%)



A total of 13.1 % of all treatments affected by IDH<sup>1</sup>



Postdialytic overhydration occurred only in 4.4% of all sessions

1 - Steinwandel, U., Gibson, N., Towell, A., Parsons, R., Rippey, J. J. R., & Rosman, J. (2018). Measuring the prevalence of intradialytic hypotension in a satellite dialysis clinic: Are we too complacent? *Journal of Clinical Nursing*, 1-10. doi: 10.1111/jocn.14309.

## Results (2)

# Statistical Modelling revealed<sup>1</sup>:

Females had almost twice the risk for IDH

Longer treatment (4.5-5 hrs) increased risk for IDH 3-fold

Indigenous Australians: highest rate of IDH, and most often overhydrated post-session

1 - Steinwandel, U., Gibson, N., Towell, A., Parsons, R., Rippey, J. J. R., & Rosman, J. (2018). Measuring the prevalence of intradialytic hypotension in a satellite dialysis clinic: Are we too complacent? *Journal of Clinical Nursing*, 1-10. doi: 10.1111/jocn.14309.

## Results (2)

# Statistical Modelling revealed<sup>1</sup>:

Females

large UF  
goals (UFR  
1000ml/hr)

Patients  
with  
diabetes

Indigenous  
Australians

<sup>1</sup> - Steinwandel, U., Gibson, N., Towell, R. Parsons, A., Rippey, J. J. R., & Rosman, J. (2018). Can a renal nurse assess fluid status using ultrasound on the inferior vena cava? A cross-sectional interrater study. *Hemodialysis International*, 22(2), 261-269. doi: 10.1111/hdi.12606



# Take home message:

Observing patients for the mean arterial pressure (MAP) can be helpful to prevent IDH episodes<sup>1</sup>

$$\text{MAP} = 1/3 \times \text{systolic BP} + 2/3 \times \text{diastolic BP}$$

MAP < 70 mmHg indicative of imminent IDH



## Take home message:

Ultrasound of the inferior vena cava



Depicts current intravascular volume status



Useful tool to support the decision on UF goal

Thank you for your attention !



Questions ?

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