SESLHDMG/145

Medicine Guideline

Desmopressin (DDAVP) Trial for von Willebrand Disease

Health
South Eastern Sydney
Local Health District

Areas where Protocol/Guideline applicable	Inpatient use Ambulatory unit (DMIC)
Authorised Prescribers:	Any medical staff member
Indication for use	DDAVP (Desmopressin) Trial is indicated in patients with Type 1 or 2A von Willebrand Disease to establish effectiveness of DDAVP in reducing bleeding, for example if needed for future surgery or bleeding
Clinical condition	Adults >18 years of age Type 1 or 2A von Willebrand Disease Is clinically well, not actively bleeding and not acutely ill A baseline EUC should demonstrate no underlying hyponatraemia or significant renal impairment
Proposed Place in Therapy	DDAVP should be trialled after diagnosis of Type 1 or 2A von Willbrand Disease to establish effectiveness for future use If it is effective, it can be first line bleeding prophylaxis for future surgeries
Contra-indications	Hypersensitivity to desmopressin Psychogenic polydipsia resulting in urine output >40mL/kg/24hrs History of unstable angina SIADH Other known hyponatraemia
Precautions	Used with caution: - In patients at risk for increased intracranial pressure - In patients with conditions associated with fluid/electrolyte imbalance - In patients taking diuretics and ACE inhibitors (consider withholding on day of DDAVP trial if appropriate)
Important Drug Interactions	Caution when used in conjunction with medications that affect water/sodium homeostasis including opioids, Selective Serotonin Reuptake Inhibitors (SSRI), Tricyclic Antidepressants (TCA), NSAIDs, chlorpromazine, carbamazepine
Dosage	**0.3 microg/kg (max 15 microg) subcut or IV ONCE only**
Duration of therapy	ONCE only
Prescribing Instructions	**Outpatient:** Prescribe on the IV Adult Fluid Order Form **Inpatient:** Prescribe on eMR
Administration Instructions	**Subcutaneous** injection can be given as a once-off injection **IV infusion**, dilute in 50mL of sodium chloride 0.9% and infuse over 20 to 30 minutes

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Monitoring requirements Safety Effectiveness (state objective criteria)	Baseline bloods (0 hours, pre-administration): EUC, VWF:Ag, VWF platelet-dependent activity (e.g. ristocetin) or factor VIII levels, serum osmolality The baseline EUC should demonstrate no underlying hyponatraemia or significant renal impairment before DDAVP is administered. Nursing staff to perform routine observations at 5, 15, 30, 60 and 120 minutes after infusion. Patients who are well and have good mobility may be discharged to perform remainder of bloods as outpatient. Repeat bloods at 4-6 hours after administration: EUC, VWF:Ag, VWF platelet-dependent activity (e.g. ristocetin) or factor VIII levels, serum osmolality Repeat bloods at 24 hours: EUC and serum osmolality. The referrer is responsible for reviewing this result. A positive response to DDAVP is typically defined as: - ≥2x increase in VWF:Ag and VWF activity from baseline - Rise of factor VIII activity to >0.5IU/mL for ≥4 hours These suggest that DDAVP can be used effectively for bleeding prophylaxis in future procedures
Management of Complications	Fluid restrict to 800mL for 24 hours after administration if no contraindication to fluid restriction If patient has complex fluid balance, please seek expert advice from the applicable specialists (e.g. cardio, renal).
Basis of Protocol/Guideline:	Connell, N. T., James, P. D., Brignardello-Petersen, R., Abdul-Kadir, R., Ameer, B., Arapshian, A., Couper, S., Di Paola, J., Eikenboom, J., Giraud, N., Grow, J. M., Haberichter, S., Jacobs-Pratt, V., Konkle, B. A., Kouides, P., Laffan, M., Lavin, M., Leebeek, F. W. G., McLintock, C., McRae, S., Montgomery, R., O'Brien, S. H., O'Donnell, J. S., Ozelo, M. C., Scappe, N., Sidonio, R., Tosetto, A., Weyand, A. C., Kalot, M. A., Husainat, N., Mustafa, R. A., & Flood, V. H. (2021). Von Willebrand disease (VWD): Treatment of minor bleeding, use of DDAVP, and routine preventive care. Blood Advances, 5(2), 565. https://doi.org/10.1182/bloodadvances.2020003275 Crowther, M. A., & Michiels, J. J. (2024). Von Willebrand disease (VWD): Treatment of minor bleeding, use of DDAVP, and routine preventive care. In T. W. Post (Ed.), UpToDate. UpToDate. Retrieved May 28, 2025, from https://www.uptodate.com.acs.hcn.com.au/contents/von-willebrand-disease-vwd-treatment-of-minor-bleeding-use-of-ddavp-and-routine-preventive-care eMIMS Elite. (2024). Desmopressin acetate. In *eMIMS Elite*. https://app.emimselite.com.acs.hcn.com.au/ Verbalis, J. G. (2024). Treatment of hyponatremia: Syndrome of inappropriate antidiuretic hormone secretion (SIADH) and reset osmostat. In T. W. Post (Ed.), UpToDate. UpToDate. Retrieved May 28, 2025, from https://www.uptodate.com.acs.hcn.com.au/contents/treatment-of-hyponatremia-syndrome-of-inappropriate-antidiuretic-hormone-secretion-siadh-and-reset-osmostat
Groups consulted in development of this guideline	Haematology Department at both St George Hospital and Prince of Wales Hospital (Dr. Shirjing Ho, Dr. Gisselle Kidson-Gerber, Dr. Tim Brighton) Endocrine Department at both St George Hospital and Prince of Wales Hospital (Prof. Anthony O'Sullivan, Dr. Sue Mei Lau) St George Hospital DMIC NUM

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AUTHORISATION	
Author (Name)	Dr Zhi Yi Wang
Position	Haematology Trainee
Department	Haematology
Position Responsible (for ongoing maintenance of Protocol)	Haematology Department STG
GOVERNANCE	
Enactment date *Reviewed* (Version 2) *Reviewed* (Version 3)	September 2025
Expiry date:	September 2027
Ratification date by SESLHD DTC Committee	5 September 2025
Chairperson, DTC Committee	Stuart Binns, A/Chair SESLHD DTC
Version Number	1.0