



Algorithms for the appropriate choice of the venous access devices: An online tool to guide you to the first choice vascular access for YOUR patient

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THE REALITY



Choosing the right catheter: A difficult choice in the vascular access world



THE CHALLENGE

- University Hospitals Leuven
- 1850 beds



The answer: development of an algorithm and make it electronically available

⇒Make evidence-based knowledge available to all

⇒Multidisciplinary VA team with high expertise in vascular access





VA-choice algorithm:

The simple edition

WHAT? FOR HOW LONG?













VA-choice algorithm:

The advanced edition



WHAT? FOR HOW LONG? ...AND MORE SPECIFIC VEIN & PATIENT'S FACTORS

The more advanced way







Therapeutic regimen?





Other patient specific factors?



UZ LEUVEN 1. DRUG PROPERTIES?



- Irritating/ vesicant?
- pH?
- Osmolarity?

- Simultaneous delivery of incompatible drugs?







- Days/weeks/months
- Intermittent/continuous
- Home care versus in-hospital





UZ LEUVEN 3. VEIN ASSESSMENT



- Peripheral and central vein status

– SVC versus IVC

History of previous access
 or venous thrombosis





4. OTHER PATIENT-RELATED FACTORS

Renal function



- Coagulation state

Tumor type and location / increased
 risk for intravascular thrombosis /
 prior surgery / radiotherapy

Medication affecting wound healing



Development of an electronical version



- Tool has been online since one month
- Bugs have been partially fixed
- Continuous evaluation of content



Example 1: non – irritant drug administration

Type acces	5	 Hemodialyse Plasmaferese IV toediening (intra veneus) IA toediening (intra arterieel) Bloedname 	Ŕ		
	Suggestie	Selecteren		✓ Opslaan	Niet akkoord

Example 2: chemotherapy administration

Vaataccess voor	M LEUVEN muzlidoc	
	O Bloedname	
Suggestie	Selecteren V	Opslaan Niet akkoord

1 .4⁴6.



UZ LEUVEN To conclude...

- Vascular access = complex multidisciplinary task
- Flow chart can be useful for patient's assessment and can help to select the appropriate device and vein
- Development of an online available tool can have practical advantages and can be used for teaching purposes
- There is always room for discussion and improvement!

 Some specifications are not yet included in this chart such as frequent blood sampling, CF, axillary node dissection, limb edema, severe BSI, neutropenia





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