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Hemodialysis Acuity Scale

Updated August 2021

Acuity Scale & BC's HD Units

- Acuity scale (v1.0) was implemented on BC's HD units over 10 years ago.
- Primary purpose is to assess the stability of patients during a HD run.
- In 2014, BCR (via the Renal Educators Group) updated the tool. Updated tool was tested & validated in 2016.
- Acuity scale (v2.0) was rolled out in 2017.

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Acuity Scale & BC's HD Units

- Expectations for assessment:
  - 90% of chronic patients dialyzing on each HD unit during designated "assessment months" will be assessed (try for 100% but be happy with 90%!).
  - 100% of acute patients where dialysis is provided by a renal nurse on a selected day of an "assessment month" will be assessed (dialysis may be provided in-centre or "off ward").
- "Assessment months":
  - April & October of each year.

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Why an Acuity Scale?

System level benefits

The acuity scale:

- Provides a demonstratable, reliable, repeated measure of HD patient profiles of stability while on HD.
- Helps us understand & track changes in the HD population across units & over time. This supports BCR's accountability to the MOH.
- Informs funding allocations within the BCR facility-based funding model (i.e., distribution of resources across HD units). By measuring changes to stability over time, we can continue to ensure adequate funding for our patient population.

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Why an Acuity Scale?

Health Authority/Hemodialysis Unit Benefits

The acuity scale helps us to:

- Identify in-centre patients who may be candidates for community dialysis units.
- Measure changes in the profile of patients on a unit over time.
- Analyze patient care processes, workload and resource requirements relative to the profile of patients on a unit.
- Stratify patients with low vs high care needs (may be useful in assigning staff).

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BCR Acuity Scale (v2.0)

Assesses 6 areas:

1. Hemodynamics
2. Independent function
3. Access
4. Treatment
5. Nursing interventions
6. Psychosocial emotional factors

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BCR Acuity Scale (v2.0)

HEMODYNAMICS							
1. Hypotension		2. Hypertension		3. Cardiac Status		4. Fluid Management	
	None		None		None		None
	Basic		Basic		Basic		Basic
	Moderate		Moderate		Moderate		Moderate
	Advanced		Advanced		Advanced		Advanced
	Complex		Complex		Complex		Complex
	Very complex		Very complex		Very complex		Very complex

INDEPENDENT FUNCTION	
	None
	Basic
	Moderate
	Advanced
	Complex
	Very complex

ACCESS					
1. Current Access Type Used in Dialysis		2. Access Complications		3. Percent Reduction Urea	
	AVF		None		None: 70% and greater
	AVG		Basic		Basic: 65-69%
	Permanent catheter		Moderate		Moderate: 60-64%
	Temporary catheter		Advanced		Advanced: 55-59%
	Dual access: one in use, one assessed		Complex		Complex: 50-54%
	Dual access: two types used simultaneously		Very complex		Very complex: <50% or pt dialyzing off-unit

TREATMENT					
1. Medications		2. Respiratory Therapy		3. Specialized Treatments	
	None or ESA only		None		None
	Basic		Basic		Basic
	Moderate		Moderate		Moderate
	Advanced		Advanced		Advanced
	Complex		Complex		Complex
	Very complex		Very complex		Very complex

NURSING INTERVENTIONS					
1. Patient Monitoring		2. Infection Control		3. Individualized Needs	
	None: Q hourly		None		None
	Basic: Q 30 mins		Basic		Basic
	Moderate: Q 20 mins		Moderate		Moderate
	Advanced: Q 15 mins		Advanced		Advanced
	Complex: Q5-15 mins		Complex		Complex
	Very complex		Very complex		Very complex

PSYCHOSOCIAL EMOTIONAL FACTORS	
	None
	Basic
	Moderate
	Advanced
	Complex
	Very complex

Patient weight (required for CORR dataset):

Starting weight: _____

Ending weight: _____

Descriptors of Indicators on BCR Acuity Scale (v2.0)

HEMODYNAMICS

LEVEL	DESCRIPTION
Hypotension	
None	No hypotension noted during treatment.
Basic	Blood pressure managed with any or all of the following: sodium profiling, fluid profiling, and dialysate temperature.
Moderate	Patient has hypotensive symptoms that require use of routine interventions. Patient able to complete treatment.
Advanced	Difficulty completing treatment due to hypotension. Requires medical review.
Complex	Unable to complete treatment due to hypotension. Requires urgent medical review.
Very complex	Patient requires continuous monitoring at a critical care level.
Hypertension	
None	No hypertension noted during treatment.
Basic	Blood pressure managed with any or all of the following: sodium profiling, fluid profiling, and dialysate temperature.
Moderate	Patient has hypertensive symptoms that require use of routine interventions. Patient able to complete treatment.
Advanced	Difficulty completing treatment due to hypertension. Requires medical review.
Complex	Unable to complete treatment due to hypertension. Requires urgent medical review.
Very complex	Patient requires continuous monitoring at a critical care level.
Cardiac Status*	
None	No cardiac history.
Basic	Has cardiac history but asymptomatic during dialysis treatment and managed with uncomplicated, medically-prescribed treatments (e.g. nitroglycerin patch, warfarin, home oxygen, pacemaker, HD prescription limits).
Moderate	Symptomatic during dialysis but responded to PRN nitroglycerin, oxygen therapy, and/or fluid therapy. Physician is aware.
Advanced	Difficulty completing HD treatment due to cardiac related symptoms. Responds to nitroglycerin, oxygen therapy, and/or fluid therapy.
Complex	One of the following is present during dialysis treatment: • Unable to complete run due to cardiac related symptoms. Requires frequent monitoring of vital signs. • New onset of a cardiac condition such as chest pain or arrhythmia during treatment: requires urgent medical workup and review. • Acute decompensated heart failure (e.g. secondary to infection, failure to take medications as ordered, fluid overload during treatment. Signs and symptoms may include symptomatic hypotension, and pulmonary edema. • Pericarditis: requires urgent medical workup and review. • Pericardial effusion: requires urgent medical workup and review. • Ventricular assist device (VAD)

See Appendix 2 in the Acuity Scale Guideline at:
http://www.bcrenal.ca/health-professionals/clinical-resources/hemodialysis

BCR Acuity Scale Processes

- At the beginning of each "assessment month," the manager/leader will identify which day of the month acute patients will be assessed (assess 100% of acute patients on that day).
- Manager/leader will assign RNs to complete the Acuity Scale on all chronic patients at some point during the "assessment month."
- RN will assess each patient using the Acuity Scale.
  - A score must be entered for each criterion (PROMIS reports only pick up the most recent completed acuity score).
  - Note: If ICU patient & PRU is not available, enter "Very complex: <50% or pt dialyzing off-unit."
- RN or Unit Assistant/Clerk/Coordinator will enter the results of the assessment into PROMIS.
- HA and facility-level reports are available in PROMIS.
  - Report can be pulled during the "assessment month" to identify patients requiring new/updated acuity scores (ignore HHD patients on the report).
  - Acuity scores will be incorporated into the semi-annual BCR Provincial HD Indicator Report.

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Questions