

**EVAS: Empirical Validity and Safety**

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| **Objectives** |
| To determine the empirical validity of quality measures implemented in the Choose My Pharmacy measurement system |
| **Methods** |
| Design | * A retrospective, chart review of quality improvement projects in three pharmacy companies: FMS, Inc, SEMO Rx Inc, and Towncrest Pharmacy
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| Study endpoints | * Measure performance on *Assessment of Weights in Pediatrics* and *Assessment of Renal Function in Older Adults*
* Patient interventions based on findings from the measures
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| **Results** |
| * Towncrest: 155 serum creatinine interventions
	+ 7 prescribers made interventions on patients to obtain serum creatinine once requested
	+ 2 medications required dosing adjustments
* SEMORx: 155 prescriptions for pediatric antibiotics with interventions
	+ 70 prescriptions contained weight and diagnosis code from prescriber
		- 42 prescriptions (60%) were dosed inappropriately and required intervention
* FMS, Inc: 115 patients with pediatric interventions and 68 patients with serum creatinine interventions
	+ Of the pediatric patients:
		- 103 prescriptions (89%) did NOT have a weight on file prior to intervention
		- 54 prescriptions required weight-based dosing
			* 2 prescriptions (4%) were dosed inappropriately (both antibiotics)
	+ Of the older adults:
		- 0 patients had a weight on file initially
		- 0 patients had a serum creatinine on file initially
			* 103 prescriptions required dosing adjustment
				+ 13 (12.6%) were dosed inappropriately
* Measure Performance:
	+ Q3 2021 Pediatric Measure
		- FMS, Inc
			* Ross Bridge: 0%
			* FMS: 0%
		- SEMO Rx:
			* L&S: 77%
	+ Q3 2021 Serum Creatinine
		- FMS, Inc
			* Ross Bridge: 0%
			* FMS: 0%
		- SEMO Rx:
			* L&S: 0%
	+ Q3 2022 Pediatric Measure
		- FMS, Inc
			* Ross Bridge: 19%
			* FMS: 8.9%
		- SEMO Rx:
			* L&S: >90%
	+ Q3 2022 Serum Creatinine
		- FMS, Inc
			* Ross Bridge: 1.5%
			* FMS: 1.1%
		- SEMO Rx:
			* L&S: 0.1%
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| **Conclusion** |
| This project showcases a few important aspects of community pharmacy practice. First, it is *feasible* for pharmacies to collect clinical data, like weight or serum creatinine. Secondly, it highlights the importance of this information during the dispensing process – both clinical laboratory values *when available* allowed pharmacies to make interventions to optimize medications and improve patient safety. Finally, this research shows the empirical validity of measuring a pharmacy’s performance on these measures. The data shows that improvement on the measures helps improve patient care, showing the measures are a valid assessment of pharmacy quality.  |