

# Imaging utilization for post-natal hydronephrosis is proportional to hydronephrosis grade



## BACKGROUND

- Imaging follow-up for persistent post-natal hydronephrosis is variable
- Unknown if variability is due to hydronephrosis severity
- Hypothesized that mild hydronephrosis would have less postnatal imaging



Image courtesy of @UltrasoundJelly

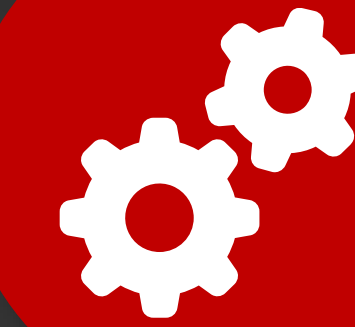


## KEY FINDINGS

	Initial Hydronephrosis Grade		
	Mild (n=990)	Moderate (n=230)	Severe (n=160)
Number of scans in 1 <sup>st</sup> year of life	Percent (%)		
<b>MAG3</b>	p < 0.001		
0	81	36	9
1	17	48	57
2+	2	16	34
<b>VCUG</b>	p < 0.001		
0	51	19	5
1	48	80	92
2+	1	1	2
<b>RBUS</b>	p < 0.001		
1	44	27	34
2	40	48	41
3+	16	24	26

On multivariate analysis, patients with moderate (RR 1.57 [95% CI 1.42 – 1.74]) or severe (RR 2.09 [95% CI 1.88 – 2.32]) hydronephrosis had higher imaging utilization than those with mild hydronephrosis

“ Patients with moderate and severe hydronephrosis had a higher rate of imaging ”



## METHODS

- Retrospective cohort study, 2005 – 2013
- Intermountain electronic data warehouse
- ICD-9 codes for hydronephrosis
- Outcome = total imaging in 1<sup>st</sup> year of life



## TAKE-AWAY

- Imaging use for post-natal hydronephrosis is proportional to hydronephrosis grade
- Clinicians are using a risk stratified approach to imaging

