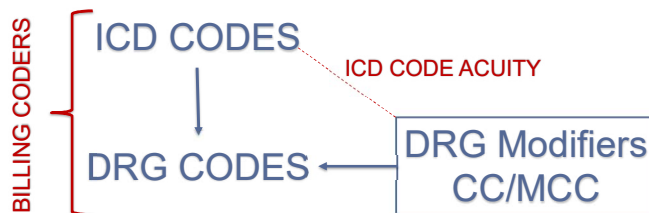


## A Retrospective Analysis Using Algorithmic Software To Determine the Missing Rate for ICD and DRG Codes Used to Identify Patient Co-Morbidities.

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## Introduction



## Methods

### Algorithm-Based Disease Recognition Using Raw EHR Data



## Results

- 1/1/2019-12/31/2019
- 34,104 Hospitalizations
  - 13,313 (34%) algorithm identified diseases with no ICD code
  - 5.8% of diseases had under-coded DRG
    - 1,035 (3%) Base → CC modifier
    - 94 (0.6%) Base → MCC modifier
    - 785 (2.2%) CC → MCC modifier
    - Estimated value of \$22,448,800

## Results

Algorithm	Total Admission Flagged by Algorithm	Appropriate ICD coding		Appropriate DRG modifiers	
		By Billing Team		By Billing Team	
Acidemia	2453	36.8%	(34.9%-38.7%)	97%	(96.3%-97.6%)
Acute MI	32	87.5%	(71.9%-95%)	75%	(61.9%-86.7%)
Acute Trop Leak	2831	66.3%	(64.5%-68.1%)	96.6%	(95.7%-97.1%)
Bacteremia	774	96.4%	(94.8%-97.5%)	98.6%	(97.5%-99.2%)
Chronic CHF	1363	78.9%	(76.2%-80.6%)	97.6%	(96.6%-98.3%)
CKD	4325	99.2%	(98.9%-99.5%)	97.9%	(97.4%-99.3%)
Death	946			97.6%	(96.4%-98.4%)
Delirium	710	71.4%	(68%-74.6%)	96%	(94.7%-96.6%)
Extreme BMI	3931	59.5%	(58%-61.1%)	89.8%	(88.9%-90.8%)
GCS ≤ 8	3457	50.4%	(48.7%-52.1%)	81.7%	(80.4%-82.9%)
Hemodialysis	539	87.4%	(84.3%-89.9%)	97.2%	(95.9%-98.3%)
HIV	299	95%	(91.9%-96.5%)	59.5%	(53.9%-64.9%)
Hyponatremia	9772	39.9%	(38.9%-40.9%)	95.6%	(95.2%-96%)
Pancreatitis	225	80%	(74.3%-84.7%)	69.3%	(63%-75%)
Post-op anemia	1149	78.7%	(76.2%-80.9%)	94.8%	(93.3%-95.9%)
Respiratory Arrest	854	96.1%	(94.6%-97.2%)	95.6%	(94%-96.7%)
TPN	794	89.9%	(84.4%-99.1%)	80.4%	(77.4%-83%)
Transplant	2801	96%	(95.2%-96.7%)	98.2%	(97.7%-98.6%)
UTI	2065	74.1%	(72.2%-75.9%)	97.5%	(96.7%-98.1%)

## Conclusion

- Algorithms can help improve accurate ICD coding
- Improve downstream DRG coding
- Improve value of administrative data sets