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Statistical Modeling and Outliers in a Medical Registry:

Online UI input feedback  
and  
Offline candidates for review

(Poster 386)

*Work done while at a Famous/Leading Hospital  
Heart and Vascular Institute Interventional Surgery  
Outcomes Reporting Registry*

- CLEAN THE DATABASE?

- Fit  $\Gamma$ -distributions (normal, semi-normal, exp, semi-exp)
- Identify Outliers ( $20\sigma$  not rare, finds typos!)
- Pass a list of outliers to data quality team
- Need rank, but not  $k$ ,  $\Theta$ ,  $\sigma$ , %

- BETTER IDEA!

- Give feedback at the GUI during data entry
- Red-letter warning for high z-score
- Also RATIOS: HDL/LDL, Diastolic/Systolic, SmokingPackYears/Age

PRACTICAL & GENERAL: DATA ANALYTICS+GUI

BEST PRACTICE