

appropriate_abx_public

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Define Variables

When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document.

```
## Warning: NAs introduced by coercion

## # A tibble: 6 x 20
##       CSN      MRN DOB   AdmitDT Service ServiceDesc ICD   ICDdesc MedDT Med
##       <dbl>   <dbl> <chr> <chr>   <chr>   <chr>      <chr> <chr>   <chr> <chr>
## 1 6125535304 4691446 9/4/~ 8/10/2~ HEM      Hematology A01.~ Typhoi~ 8/10~ cefT~
## 2 6125535304 4691446 9/4/~ 8/10/2~ HEM      Hematology A01.~ Typhoi~ 8/10~ azit~
## 3 6125535304 4691446 9/4/~ 8/10/2~ HEM      Hematology A01.~ Typhoi~ 8/10~ cefT~
## 4 6125535304 4691446 9/4/~ 8/10/2~ HEM      Hematology A01.~ Typhoi~ 8/10~ azit~
## 5 6125535304 4691446 9/4/~ 8/10/2~ HEM      Hematology A01.~ Typhoi~ 8/18~ cefT~
## 6 6125535304 4691446 9/4/~ 8/10/2~ HEM      Hematology A01.~ Typhoi~ 8/18~ cefT~
## # ... with 10 more variables: MedRoute <chr>, Orderset <dbl>, Allergy <chr>,
## #   AllergyType <chr>, LabOrder <chr>, CollectionDT <chr>, Organism <chr>,
## #   Susceptibility <chr>, SusceptibilityAntibiotic <chr>,
## #   SusceptibilityDT <chr>

## [1] "Total starting encounters: 1515"
```

Define guideline exclusions and guideline choices

Output

Summary of reasons for exclusion

	Reason For Exclusion	Count	Excluded Encounters
## 1	below min age		10
## 2	did not receive antibiotic		76
## 3	excluded diagnosis		90
## 4	excluded other common infection		121
## 5	excluded service		404
## 6	included		814
## 7	Grand Total		1515

Summary of Correct/Incorrect Orders with Labels [Pre-NLP Analysis]

	correctlabels	correctinitialabx	count
## 1	Incorrect	0	264

```
## 2      Correct      1    550
##                                     label CSN
## 1      Appropriate age for Azithro use 64
## 2 Correct substitute i/s/o cephalosporin allergy 9
## 3      Correct substitute i/s/o PCN allergy 61
## 4                                     First Line Choice 427
## 5                                     Likely incorrect abx 264
## Warning: One or more parsing issues, see `problems()` for details
```

Summary of NLP findings

```
## # A tibble: 5 x 2
##   correctinitialabx count
##   <dbl> <int>
## 1      0    173
## 2      1    550
## 3      2     39
## 4      3     50
## 5      4      2
```

Summary of NLP after applying additional guidelines for unimmunized patients

```
##               rowlabesl correctinitialabx count
## 1      Likely Incorrect      0    173
## 2              Correct      1    575
## 3 Outpatient Treatment Failure      2     16
## 4      Aspiration Pneumonia      3     50
##
##                                     label CSN
## 1      Appropriate age for Azithro use 64
## 2              aspiration pneumonia 50
## 3 Correct substitute i/s/o cephalosporin allergy 9
## 4      Correct substitute i/s/o PCN allergy 61
## 5                                     First Line Choice 427
## 6                                     Likely incorrect abx 173
## 7      outpatient treatment failure 39
## 8                                     unimmunized 2
```