

# MIMIC-III Clinical Database

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# MIMIC Data Summary

Medical Information Mart for Intensive Care (MIMIC) is Electronic Medical Record data

Deidentified data on 40k patients at Beth Israel Deaconess Medical Center between 2001 and 2012.

Includes standard demographics, diagnosis, and procedure codes as well as time-varying lab result and bedside monitor trends and waveforms.

Access requires CITI data security training and apply for a Data Use Agreement (DUA).

# MIMIC Data Access and Build

Once granted data is obtained over the web as subset-specific gzip files

```
wget --user YOURUSERNAME --ask-password -A csv.gz -m -p -E -k -K -np -  
nd https://physionet.org/works/MIMICIIIClinicalDatabase/files/
```

A docker file and setup code is available through github

```
docker build -t postgres/mimic
```

```
docker run --name mimic -p 5555:5432 -e BUILD MIMIC=1 -e  
POSTGRES_PASSWORD=postgres -e MIMIC_PASSWORD=mimic -v  
"LOCALDAT:/mimic_data" -v "LOCALDB:/var/lib/postgresql/data" -d  
postgres/mimic
```

# MIMIC Data Exploration

The top 10 drugs account for nearly 30% of the 4.2 million drug records

|                            |         |       |
|----------------------------|---------|-------|
| Potassium Chloride         | 192,993 | 4.64% |
| Insulin                    | 143,465 | 3.45% |
| D5W                        | 142,241 | 3.42% |
| Furosemide                 | 133,122 | 3.20% |
| 0.9% Sodium Chloride       | 130,147 | 3.13% |
| NS                         | 129,731 | 3.12% |
| Magnesium Sulfate          | 90,427  | 2.18% |
| Iso-Osmotic Dextrose       | 87,005  | 2.09% |
| Sodium Chloride 0.9% Flush | 83,392  | 2.01% |
| Acetaminophen              | 78,768  | 1.90% |