

A Brief Overview of VHA Medication Data Sources

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of Veterans Affairs



Disclosures

- None
- ... But I have worked with the data for over a decade and am slightly biased to think that it is easier to get to than most people assume.



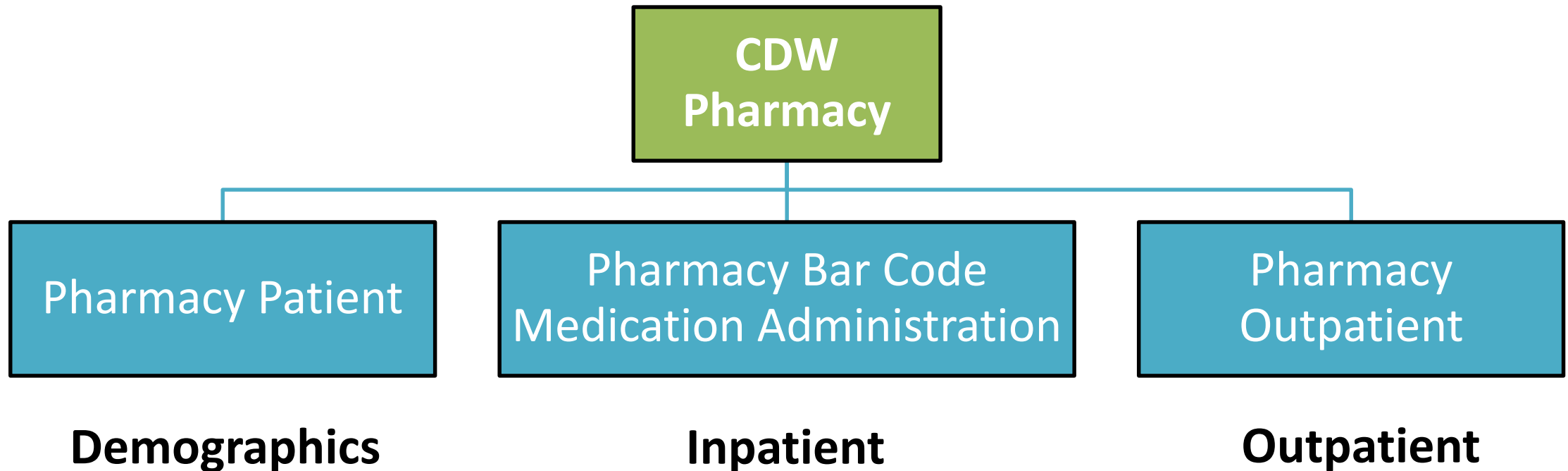
Comparison of Pharmacy Data

	CDW	PBM	MCA NDE	Non-VA Meds
Description	National repository from VistA <i>* Includes CMOP</i>	Cleaned national database with dispensed prescriptions <i>* Includes CMOP</i>	Pharmacy cost and workload for FY2005 onward	Limited information on Non-VA Medications collected at med reconciliation
Availability	FY2000 – present	FY1999 (Outpatient) FY2004 (Inpatient)	FY2005 – present	FY2000 – present
Cost Data	Available	Cost of the Drug from the Supplier	Actual Cost Dispensing Cost Supply Cost	None
Drug Identifiers	Local Drug File	NDC	IPNUM	Free-text search
Effort Required?	★★★★	★★	★	★★★



CDW Pharmacy Data

- Has the most granular information on prescriptions including medication administration time, route, schedule, and instructions.
- Relational database structure can be challenging to work with





CDW

Pharmacy Patient

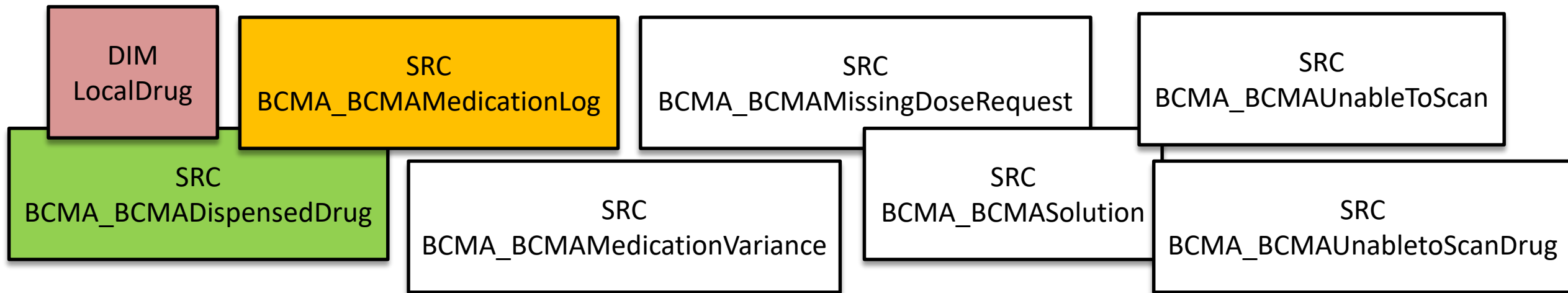
- Legacy table from when Pharmacy data was separate from VistA
- Stores patient information most relevant to medication use
 - Labeling preferences
 - Prescription mailing preferences (CMOP vs. local distribution)
 - Unit dose scheduling
 - Scriptalk enrollment



CDW

Pharmacy Bar Code Medication Administration

- Administration of Inpatient Medications
- Most granular information on inpatient pharmacy
 - Dispensed Drug
 - Medication Log
 - Missing Dose Request
- Requires linking multiple tables to get to necessary information

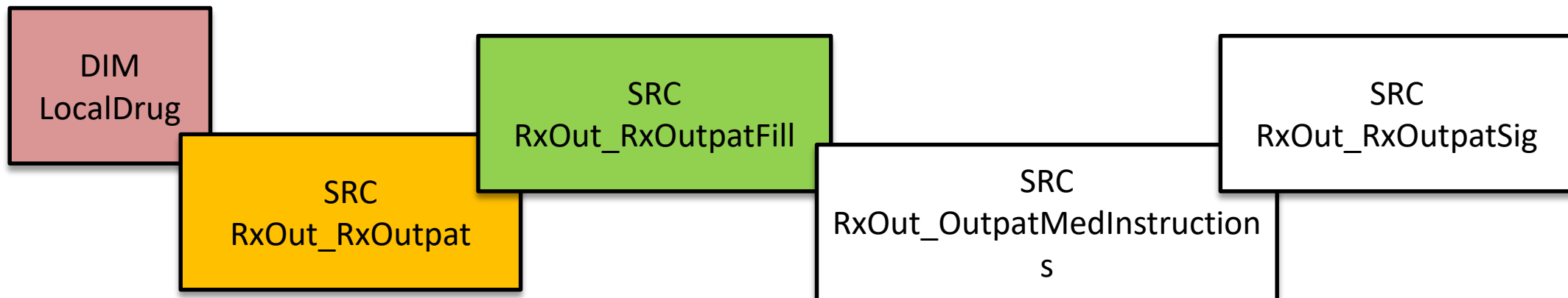




CDW

Pharmacy Outpatient

- Outpatient pharmacy
 - Dates (issued, filled, held, discontinued)
 - Number of Refills
 - Medication Instructions, Route, Schedule
 - Prescribing provider and filling pharmacist
- Fewer tables but more granular information than MCA NDE or PBM





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Effort Required?	★★★★	★★	★	★★★



Pharmacy Benefits Management (PBM)

- All prescriptions dispensed within the VHA systems beginning with fiscal year 1999.
 - Medication dispensing utilization information for prescription fills in VHA pharmacies
 - Dosing instructions for each prescription
 - National Drug Code (NDC) identifier (when applicable)
 - Drug cost
 - Provider information
 - Additional data specific to inpatient and outpatient sectors



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Pharmacy Managerial Cost Accounting National Data Extract (MCA NDE)

- Pharmacy cost and workload for inpatient and outpatient VHA pharmacy dispensing
 - Labor cost for each prescription separate from the drug product itself
- Data originate from site-level MCA databases and the VistA Pharmacy Prescription File (#52)
 - Formerly known as DSS
 - Current CDW tables are still referenced as DSS.PHA
 - Use IPNUM to identify pharmacy data elements

SRC
DSS_PHA



Pharmacy Managerial Cost Accounting National Data Extract (MCA NDE)

- **Patient and Provider Identifiers**
- **Medication Characteristics**
 - Day supply, Drug Class, Quantity
- **Cost Elements**
 - Actual Total Cost, Dispensing Fee, Variable Direct Cost...
- **Event Dates**
 - Admission & Discharge Day, SVC_DTE (Date of dispense)
- **Patient Care Setting**
 - Inpatient/Outpatient, Station, VISN
- **Pharmacy Location**
 - Consolidated Mail Out Pharmacy, Site-Specific Location



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Effort Required?	★★★★	★★	★	★★★



Non-VA Meds

- Non-VA medications taken or reported by the patient
- Typically done at medication reconciliation so the dates are not exact
- Data elements
 - Dates (documented, started, discontinued)
 - Dosage, Route, Schedule
 - Comments and Status



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Key Identifiers

- **National Drug Code (NDC)**
 - Unique 3-segment number assigned by FDA to identify drug products
- **Intermediate Product Number (IPNum)**
 - Used in the MCA NDE files to identify certain drug types.
 - This is not specific to a NDC number. Example: All aspirin tablets have one IPNUM but multiple NDC codes
- **Drug Classification (VA_CLASS)**
 - Identifies broad classes of drugs (i.e. CN101 = Opioid Analgesics, BL110 = Analgesics)
 - Useful for catching broad categories of drugs



Other Important Resources for Using Pharmacy Data



Requesting Data

	CDW	PBM	MCA NDE	Non-VA Meds
Source	VINCI: CDW Production Tables	Pharmacy Benefits Management Services	VINCI: CDW Legacy SAS table	VINCI: CDW Production Tables
Request Process	Data Access Request Tracker (DART)	Complete online data request through PBM	Data Access Request Tracker (DART)	Data Access Request Tracker (DART)
Workspace	VINCI	Outside VINCI	VINCI	VINCI



VA National Formulary & National Drug File

<https://www.pbm.va.gov/nationalformulary.asp>

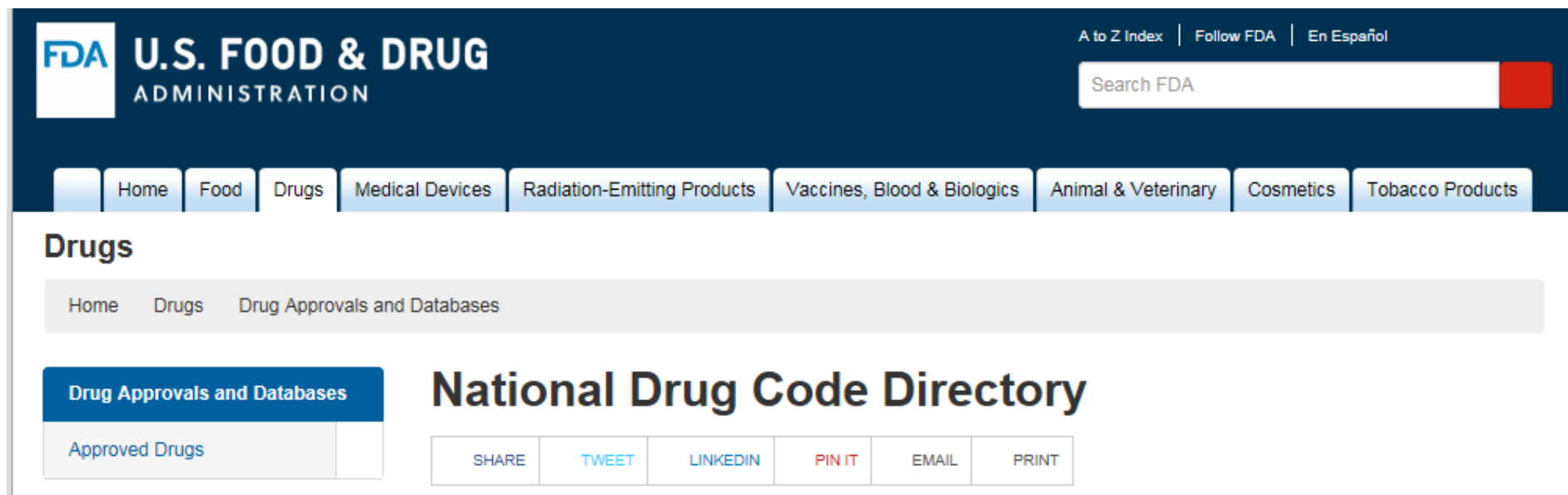
- National Drug File
 - Standardizes drug names across local drug files
 - Maintained by PBM
- VA National Formulary
 - Products available for prescribing by all physicians at all VA facilities
 - Updated each quarter

The screenshot shows the VA National Formulary website. At the top, the breadcrumb navigation reads: "VA » Health Care » Pharmacy Benefits Management Services » VA National Formulary". Below this is the main heading "Pharmacy Benefits Management Services" in a large blue font. On the left side, there is a dark blue navigation menu with the following items: "Pharmacy Benefits Management Services" (expanded), "PBM Home", "Clinical Guidance", "Education and Training", "Ez Minutes Newsletter", "Links & Other Resources", and "Drug Prices, Contracts &". The main content area is titled "VA National Formulary" and contains two sections: "VA National Formulary Section" and "VA Class Index Section". The "VA National Formulary Section" includes three links: "VA National Formulary - April 2018- Excel Spreadsheet", "VA National Formulary by Class - April 2018 - Excel Spreadsheet", and "VA National Formulary Changes - April 2018 - Excel Spreadsheet". The "VA Class Index Section" includes one link: "VA Class Index - Excel Spreadsheet".

National Drug Code Directory

<https://www.fda.gov/Drugs/InformationOnDrugs/ucm142438.htm>

- All drug products are identified by a National Drug Code (NDC)
- Non-VA searchable database of all registered drug establishments since 1972
- Includes dosage form, routes, packaged quantities, and manufacturers



The screenshot shows the FDA website's navigation bar with the logo and "U.S. FOOD & DRUG ADMINISTRATION". A search bar labeled "Search FDA" is on the right. Below the navigation bar are tabs for "Home", "Food", "Drugs", "Medical Devices", "Radiation-Emitting Products", "Vaccines, Blood & Biologics", "Animal & Veterinary", "Cosmetics", and "Tobacco Products". The "Drugs" tab is selected. Below the tabs, there is a breadcrumb trail: "Home > Drugs > Drug Approvals and Databases". A blue button labeled "Drug Approvals and Databases" is visible. The main heading "National Drug Code Directory" is displayed in large, bold text. Below the heading are social sharing buttons for "SHARE", "TWEET", "LINKEDIN", "PIN IT", "EMAIL", and "PRINT".



DSS Product Table

http://vaww.dss.med.va.gov/programdocs/pd_products.asp

- Links the IPNUM to the NDC code along with a drug description and class.
- Updated each quarter

	A	B	C	D	E	F	G	H	I	J
1	FdrSys	Template Dept	IP Num	FdrKey	FDRKEY EY 1ST 5	FDRKEY LAST 12 CHAR	Description	Date Revised or Added	PHA Long Description	Drug Class
6728	PHA	PHARMACY 1	29230	007400	00740	00000000	HEPARIN NA 20000UNT/ML IN	Before 5/2009	HEPARIN NA 20000UNT/ML INJ	BL110
6729	PHA	PHARMACY 1	29231	007410	00741	00000000	HEPARIN NA 1000UNT/ML (PF	Before 5/2009	HEPARIN NA 1000UNT/ML (PF) INJ	BL110
6730	PHA	PHARMACY 1	29232	007420	00742	00000000	HEPARIN NA 10000UNT/ML IN	Before 5/2009	HEPARIN NA 10000UNT/ML INJ	BL110
6731	PHA	PHARMACY 1	29233	007430	00743	00000000	HEPARIN NA 5000UNT/ML INJ	Before 5/2009	HEPARIN NA 5000UNT/ML INJ	BL110
6732	PHA	PHARMACY 1	29234	007440	00744	00000000	HEPARIN NA 15000UNT/ML IN	Before 5/2009	HEPARIN NA 15000UNT/ML INJ	BL110
6733	PHA	PHARMACY 1	29235	007450	00745	00000000	HEPARIN NA 7500UNT/ML INJ	Before 5/2009	HEPARIN NA 7500UNT/ML INJ	BL110
6734	PHA	PHARMACY 1	29236	007460	00746	00000000	HEPARIN NA 2500UNT/ML INJ	Before 5/2009	HEPARIN NA 2500UNT/ML INJ	BL110
6735	PHA	PHARMACY 1	29237	007470	00747	00000000	HEPARIN NA 10UNT/ML LOCK	Before 5/2009	HEPARIN NA 10UNT/ML LOCK FLUSH SOLN	BL110
6736	PHA	PHARMACY 1	29238	007480	00748	00000000	HEPARIN NA 100UNT/ML LOCK	Before 5/2009	HEPARIN NA 100UNT/ML LOCK FLUSH SOLN	BL110
6737	PHA	PHARMACY 1	29239	007490	00749	00000000	HEPARIN NA (BEEF) 1000UNT	Before 5/2009	HEPARIN NA (BEEF) 1000UNT/ML INJ	BL110
6738	PHA	PHARMACY 1	29240	007500	00750	00000000	HEPARIN NA (BEEF) 5000UNT	Before 5/2009	HEPARIN NA (BEEF) 5000UNT/ML INJ	BL110



Data Resources

- **VHA Data Portal**

<http://vaww.vhadataportal.med.va.gov/>

- Great resource for VHA data
- [Data Access Request Tracker \(DART\)](#)

- **VHA Data Architecture Repository**

<https://vaausdarmul81.aac.dva.va.gov/>

- Detailed data dictionary for CDW tables
- Search string can be useful for finding data buried in CDW tables



HSR&D Listserv

- <http://vaww.listserv.va.gov/scripts/wa.exe?A0=HSRDATA-L>
- Requires a sign up
- Emails are archived
- Great resource for asking questions or looking for prior questions
- Other ListSers available at <http://vaww.listserv.va.gov>



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Contact

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