

# Insights

## The National Prosthetics Patient Database (NPPD): A Primary Resource for Nationwide VA Durable Medical Equipment Data

The National Prosthetics Patient Database (NPPD), developed by the Prosthetic and Sensory Aids Service Strategic Health Care Group (PSAS), is a database comprising orthotic, prosthetic and sensory devices dispensed to veterans nationwide. The NPPD was originally developed to 1) oversee and monitor the VA Prosthetic Service, and 2) to provide clinicians with information regarding prosthetic prescription practices. The NPPD became available to the VA research community in 2000. The NPPD can be used to evaluate clinical and patient practices regarding prosthetics, orthotics, sensory devices and wheelchairs; important aspects of assistive technology services. <sup>1</sup>

What is the National Prosthetics Patient Database (NPPD) Database?

#### PERIOD COVERED

Starting October 1, 1997 through the present. Federal Fiscal year (September 1 – October 31).

#### NPPD DATA SOURCES

The NPPD is a roll-up of all prosthetic data extracted from the local Veterans Health Information Systems Technology and Architecture (VISTA) Prosthetics Software Package for each VHA facility in the United States. <sup>1</sup>

#### DATABASE ORGANIZATION AND UNIQUE FEATURES

The NPPD is written in MS Access with one record per device transaction. Transactions are categorized as (a) a first time issue, (b) a repair or (c) a replacement. Patients with multiple device transactions in a given fiscal year will have multiple records. In other words, the database is organized to track the history of each device issued to each veteran. The unique features of the NPPD database include:

- ♦ Identifies ownership of prosthetic, orthotic and sensory devices
- ♦ Identifies and defines each device transaction made over time
- Identifies and defines the cost for each device transaction made over time
- ♦ Allows for monitoring of prescription practices
- ◆ Facilitates queries for novice MS Access users
- Links with individual patient information using the NPPD Identifier File

### **DATABASE CONTENT**

The NPPD comprises 25 data fields. The definition for each of these data fields is summarized in Table 1.

**Table 1 NPPD Data Elements and Corresponding Definitions** 

Data Element	Data Type	Orresponding Definitions  Definition
1. ID	Auto-number	A record number of the database; the number associated with each transaction.
2. VISN	Number	Identifies VISN where the device was prescribed and dispensed (VISNs 1-22).
3. STATION	Text	The name of the VA medical center (e.g., Seattle).
4. NPPD LINE	Number and Text	VA code that specifies the type of device within a category (e.g., Device Category = Wheelchairs, NPPD Lines categorizes this further by motor, scooter, manual or custom)
5. PATIENT ID	Number	Patient identifier unique to NPPD; the crosswalk file is needed to link this unique identifier to social security numbers.
6. HCPCS PSAS	Text	The five character Health Care Financing Administration Common Procedure Coding System – Prosthetic and Sensory Aids Service code corresponding to the particular prosthetic item.
7. HCPCS CPT	Text	The five character Health Care Financing Administration Common Procedure Coding System – Common Procedure Terminology code corresponding to the item.
8. COST	Currency	The total cost for the item or service = (vendor charge for item) * (quantity).
9. TYPE	Text	One of four service types: initial issue, replacement, spare, or repair.
10. QUARTER	Number	The quarter of the fiscal year in which the item was ordered.
11. ITEM	Text	Free text description of the service or item.
12. CALCULATED COST	Currency	The aggregate cost for all parts comprising a single prosthetic device with multiple parts (e.g., a prosthetic limb may be comprised of 6 items and therefore is represented by six row in the NPPD; the calculated cost is the sum of the vendor charges across these rows).
13. QUANTITY	Number	The number of item units issued per transaction. This element varies dependent on unit of measurement associated with each item (e.g., number of hose versus pounds of oxygen).



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### continued from page 2 Table 1 NPPD Data Elements and Corresponding Definitions

Data Element	Data Type	Definition
14. VENDOR	Text	The text name of the company that provided the device/service.
15. FORM	Text	Gives information on how the device or service was procured or issued. There are approximately 15 different fiscal forms or fiscal methods that can be used to procure a device or service (e.g., STOCK ISSUE, 2914, PURCHASE, 2421, VISA, and OTHER (i.e., accounts for work load associated with fiscal accounting)).
16. CATEGORY	Text	Indicates whether the item was ordered for a patient who was service connected (SC), not service connected (NSC), in-patient (IP) or outpatient (OP) (e.g., NSC/IP).
17. SPECIAL CATEGORY	Text	This element is applicable only when NSC/OP is selected for the category variable. Non-service connected (NSC) patients seen in an outpatient setting fall within one of four special benefit eligibility categories: Eligibility Reform, Post Hospital Care, Aid and Attendance and Special Legislation.
18. VISTA NUMBER	Number	The number assigned to a particular prosthetics item order by the VISTA Prosthetics Package
19. CREATE DATE	Date/Time	The date on which the transaction was ordered and logged into the VISTA Prosthetics Package
20. DELIVERY DATE	Date/Time	The date the transaction was completed with the patient, as reported in the VISTA Prosthetics Package.
21. PROCESSING DAYS	Number	The number of days from the Create Date to the Delivery Date.
22. HCPCS DESCRIPTION	Text	The text description of the HCPCS PSAS code (e.g., routine eyeglasses, electrode, bathtub wall rail, reacher)
23. WHO	Text	The name of the VA staff person who made the transaction for the particular prosthetic item
24. TRANSACTION NUMBER	Text	The 1358 daily record or the purchase card order number for each item or service, which is generated by and extracted from the station.
25. PSAS INVENTORY	Text	Indicates whether or not the item or service was available from inventory on hand.

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#### **DATABASE CONTENT**

The MS Access database can be exported to MS Excel in a text file for use in other data management analysis software. The NPPD MS Access database also includes a summary report and queries. The summary report presents the data in a default format, but it can be customized by the user to present the data according to their preferred format. Queries allow users to view, change and analyze data in different ways. The NPPD queries include customized queries and a set of pre-programmed queries. Customized queries are useful for researchers who are MS Access-trained and who need to analyze a set of data elements not included within a pre-programmed query. Each pre-programmed query comprises 20 data fields and these queries are useful for users not trained in MS Access. The pre-programmed queries allow the user to select records according to VISN, Health Care Financing Administration Common Procedure Coding System (HCPCS) codes, vendors, date, and costs. Each pre-programmed query outputs records that list the station, HCPCS code, item description, cost, and creation date for every device captured by the parameters of the query. Some of the pre-programmed queries include additional information, such as vendor or patient identifier.

#### HOW CAN THE NPPD BE USED IN RESEARCH?

The NPPD can be used to address health services, rehabilitation and medical research questions including quality, access, patient outcomes, health care costs and management of secondary disabilities and comorbidities and community reintegration. <sup>2</sup>

#### LINKAGE WITH OTHER VA DATABASES

The NPPD Identifier File is necessary to link NPPD identifier data to any primary data or secondary/administrative VA datasets by SSN or scrambled SSN. This crosswalk file is required for linkage because the NPPD patient identifier data is a unique identifier, not SSN or scrambled SSN. This crosswalk file must be obtained from the PSASSHG.

#### LIMITATIONS OF THE NPPD

- ◆ The NPPD does not include augmentative communication devices such as voice-activated software
- ♦ The NPPD does not include data regarding device use and abandonment
- ◆ Data fields containing sensitive information (e.g., station name, staff names) are not coded to ensure sensitive handling of results
- ♦ The quality of the data entry and data extraction process has not been evaluated





#### HOW CAN RESEARCHERS GAIN ACCESS TO THE DATABASE?

Protocol for Sharing NPPD Data

There is an established protocol for sharing NPPD data for VA and Non-VA investigators and this protocol reflects current VA policy. <sup>3</sup> A copy of the full protocol can be accessed through the Internet at www.va.gov/publ/direc/health/infolet/11200101.pdf. Access is currently limited to authorized information service center staff and VA personnel (M-3, Chapter 9, subparagraphs 9.14b and 9.14c). The investigator may be responsible for costs incurred by Veterans Health Administration (VHA) for access or use of the NPPD.

#### Procedures and Preferred Formats

The formal written and signed request (memo or letter format) from the principal investigator must contain the following:

- (1) A one page document describing the project (Executive Summary or Abstract is acceptable), cover sheet of the approved Merit Review or Pilot Application, and a copy of the letter of approval from the local VA Research and Development Committee and the facility director or other appropriate research agency.
- (2) The specific NPPD variable(s) needed to accomplish the objectives within the approved VA research protocol.
- (3) If patient Social Security Number (SSN) disclosure is required for the effective use of the database, provide special documentation for the need, e.g., the principal investigator requires linking of the database to the VA Medical SAS datasets.
- (4) A completed and signed Privacy Act and Data Security Statement. Please see sample format on page 3 of 4 at: http://www.va.gov/publ/direc/health/infolet/11200101.pdf. This URL was accessed on January 25, 2002.
- (5) A copy of the IRB endorsement.

All data requests should be sent directly to Prosthetic and Sensory Aids Service Strategic Health Care Group (PSASSHG) (113).

#### Compiling Requested Data

Several Prosthetic Clinical Management (PCM) staff compile approved NPPD data requests. The PCM staff report directly to the Chief Consultant in the PSASSHG (113) in VA Headquarters and are located in Building 37 on the Hines VA Hospital campus in Hines, Illinois.

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Intranet addresses have been removed from this document. Intranet links are available on the Intranet version of this publication. For more information, please go to VIReC's Redaction Information web page:

http://www.virec.research.va.gov/References/Redactions.htm

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For construction/validation of NPPD:

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#### Websites

- ◆ Prosthetics and Sensory Aids Service (Intranet)
- ◆ VA Information Resource Center (Internet) http://www.virec.research.va.gov

#### LITERATURE CITATIONS

- 1. Downs F. The National Prosthetic Patient Database: A National Information Resource for Prosthetic Prescriptions Written in the VA. Journal of Rehabilitation Research and Development, 2000; 37(3): vii-xi.
- 2. Weaver F, Guihan M, Pape T, et al. Creating a Research Agenda in SCI based on Provider and Consumer Input. SCI Psychosocial Processes, 2001; 14, 77-88.
- 3. Holohan, T. Patient Care Services Information Letter, Protocol for Sharing National Prosthetic Patient Database with VA and Non VA Research Investigators, IL 11-2001-001, 2001. Available at: http://www.va.gov/publ/direc/health/infolet/11200101.pdf. Accessed January 23, 200

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