AACVPR Pulmonary Rehabilitation Registry
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No disclosures to report

Except that I am a Registry user, just like you! 😊
Thank you to our Sponsors!

Objectives

- Review the basics of the pulmonary rehab registry and reports that are available for summarizing data
- Learn how to use the various sections in the registry (including the patient list, reports and data extraction) to scan for record completeness and data errors
- Increase knowledge of Data Extraction and how to use it to calculate progress toward meeting Performance Measures
- Discuss importance of Registry Link for Performance Measure Data in AACVPR program certification
- Purpose of the Super User Group/Registry Committee and how to access AACVPR Registry Resources

AACVPR Pulmonary Registry Program Distribution
Pulmonary Registry Subscriber Statistics

- 240 Pulmonary Programs
- 94% program retention rate for 2017-2018 – Current program retention rate is 80% for 2018
- 29% of AACVPR Certified Programs use the registry
- 70% of Registry Programs are AACVPR Program Certified

Pulmonary Registry Patient Records

Over 40,000 patient records by Aug 2017.
Currently, more than 56,340 patient records as of September 7, 2018

Registry Participation Benefits

- Supports 2018 AACVPR recommendations of outcome tracking, quality improvement & performance measures
- Links registry data with Program Certification requirements, which are outcomes based starting this year (2018)
- Easy and convenient way of organizing your program outcomes and utilization data
- Immediate feedback regarding performance, progress and areas that need improvement
- Demonstrates your commitment to improving patient care
- Raises status of your services in healthcare system
- Strengthen the understanding and awareness of the impact of pulmonary rehabilitation
PR Registry Data Elements

- Demographics & Insurance Information
- Medical History
  - Admitting diagnoses and comorbidities
  - Recent COPD hospitalization date
- Program Data: referral, enrollment, discharge
  - Anthropometric values, smoking status
  - Dyspnea Assessments
  - Functional Capacity (6MWT)
  - Physical Activity: steps, exercise minutes, exercise days
  - O2 use, prescription, system type
  - Medication
  - Tobacco Status
  - Health Related Quality of Life (HRQoL) Assessments
  - Psychosocial/Depression Assessments
- Healthcare utilization: Unwanted Events, Hospitalization, Exacerbation

Supported Assessment Tools

- Dyspnea Assessment
  - mMRC
  - UCSD-SOBQ
  - TDI
  - BDI
  - TDI/BDI
- Functional Capacity
  - 6MWT
  - IPAQ METs Mins/Wk
  - Peak METs
- Health Related Quality of Life
  - CRQ
  - SGRQ
  - SF-36
  - Ferrans & Powers QLI Global
  - Dartmouth COOP
  - COPD Assessment Test (CAT)
- Psychosocial/Depression
  - PHQ-9
  - PHQ-5
  - HADS
  - GDS 15 & 30
  - BDI-2
  - CES-D

Registry Navigation Overview
**Registry Reports**

**PR Registry Reports**

- Patient Summary Report
  - Review at discharge: comparison of pre vs. post data
- Program Outcomes Summary Report
- Completed Program Data
- Program Comparison Report
  - Discharged patients vs. selected group (state wide or entire registry)
- Performance Report
  - Program outcomes benchmarked to selected group
- Quarterly Trends Report - Coming Soon!
  - Graph of quarterly trends for 13 pre-defined measures
- Program Utilization Report - Coming Soon!
  - Graph that compares data for 4 pre-defined measures

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**Patient Summary Report**

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Registry Report Navigation Overview

Accessing NEW Registry Reports!

Quarterly Trend Graph Reports

With the Quarterly Trends Graphs, Programs can track quarterly trends for:

- Completion rate
- Enrollment rate
- Mean 6 Minute Walk Distance
- Mean Attendance
- Mean Exercise Days/Week
- Mean Exercise Dose (Min/day * Day/Week)
- Mean Number of Sessions
- Mean Peak METs
- Mean Program Duration
- Mean Wait Time
- Number of Referrals
Program Utilization Reports allow programs to compare their data against other programs for:

- Referrals
- Enrollment Rate
- Completion Rate
- Wait Times

What Does your Outcome Data Represent?

- Evaluates Effectiveness (patient outcomes and program performance)
- Identifies program practices that need improvement (PI & QI Projects)
- Demonstrates effectiveness of changes made for improvement
- Identifies potential errors in data reporting

Data Quality
Data Quality & Completeness

- Regularly review data definitions with staff entering the data into the registry for data quality assurance purposes
  - https://www.aacvpr.org/Registry/Registry-User-Resources
- Follow the standardized definitions for each data element!
- Prevent the dreaded “Blank Space”

Data Quality: Checking for Outliers

- Do quick counts of records meeting specific search criteria
- Create a set of records meeting multiple search criteria
- Do in-depth analyses of demographics, patient outcomes and track performance measures
- Search for errors or missing data

Data Quality: Checking for . . .

- How to check patient records for completeness:
  - Patient record file status
  - Home Page Snapshot status
  - Patient list table
  - Reporting features
  - Data Extraction
  - Refer to AACVPR Registry Webcast: Assessing Your Data for Quality and Performance
    - https://www.aacvpr.org/Registry/Registry-User-Resources
File Status

Red flags are OK—
IF you know why they're there

Performance Measures & Data Extraction
Performance Measures

Improvement in Dyspnea at Completion of PR
- Disease-specific instruments:
  - Modified Medical Research Council Scale (mMRC) – MCID 1 unit
  - University of California, San Diego, Shortness of Breath Questionnaire (UCSD-SOB) – MCID 5 points
  - Baseline Dyspnea Index (BDI) / Transitional Dyspnea Index (TDI) – MCID 1 unit
- Performance Measure Definitions
  - Review the FAQ, Data Definitions and Specifications carefully

PR Performance Measure

Improvement in Functional Capacity
- 6 minute walk test (6MWT)
  - MCID – 30 meters or 98.43 feet
- Performance Measure Definitions
  - Review the FAQ, Data Definitions and Specifications carefully
PR Performance Measure

- Improvement in Health-Related Quality of Life
  - Disease-specific instruments:
    - Chronic Respiratory Disease Questionnaire (CRQ) – MCID for each domain is 0.5
    - St. George’s Respiratory Questionnaire (SGRQ) – MCID is 4
    - COPD Assessment Test (CAT) – MCID of 2 is reliable estimate
- Performance Measure Definitions
  - Review the FAQ, Data Definitions and Specifications carefully

Data Extraction Wizard

- 3 Step Process
  - Step 1 – Choose Discharge Date Range
Data Extraction – Performance Measures

Step 2 – Choose Program Completed

Data Extraction – Performance Measures

Step 3 – Choose Admission Events: COPD & ILD Primary Diagnosis

Data Extraction – Performance Measures

Step 4 – Generate Excel Spreadsheet
Data Extraction – Performance Measures

Excel Spreadsheet:
You will need to delete the columns that you do not need for this search, so that you can easily see the data you need. I have deleted all except the following columns.

[Table]

You will find the General Information Tab at the bottom of the Excel Spreadsheet.

• For each Performance Measure, patients must meet the following, according to the algorithm:
  - Primary Diagnosis COPD or ILD
  - Complete the Performance Measure Outcome at Intake and Discharge (within 1 week of program entry and program discharge)
  - Completed at least 10 PR sessions within a 3 month period (PR program can run longer than 3 months)
  - Improve the Performance Measure by at least MCID
Data Extraction – Improvement in Dyspnea

Step 5 – Review your data to determine that the patients have completed the performance measure at program entry and program discharge. For the dyspnea assessment (SOBQ), 13 patients completed the assessment at program entry and program discharge. I am removing patient in line 4 from my calculations (green line).

Data Extraction – Improvement in Dyspnea

Step 6 – Determine the Denominator: the patients that have completed at least 10 sessions of pulmonary rehab within a 3 month time period. All 13 patients who completed the performance measure assessment also completed at least 10 session of pulmonary rehab during a 3 month time period, so the Denominator “D” is 13.

Data Extraction – Improvement in Dyspnea

Step 7 – Determine the Numerator: the patients that have met the MCID for Improvement in Dyspnea, using a supported assessment tool, (in this case, the UCSD-SOBQ). The MCID for the UCSD-SOBQ is a decrease of 5 points. 6 patients have met the MCID, so the Numerator “N” is 6.
Improvement in Dyspnea Results

- Step 8 - Using the Algorithm: \( \frac{N}{D} \times 100 \), calculate the percent (%) of patients with COPD & ILD, who completed the Dyspnea performance measure (USCD-SOBQ), who completed 10 sessions of PR within a 3 month period and who improve their dyspnea by the MCID
- \( N = 6, D = 13 \), thus \( \frac{6}{13} = 46.2\% \)

Data Extraction – Functional Capacity

Step 5 – Review your data to determine that the patients have completed the performance measure at program entry and program discharge. For the functional capacity assessment (6MWT), 12 patients completed the assessment at program entry and program discharge. I am removing patients in lines 8 & 11 from my calculations (green lines).

Data Extraction – Functional Capacity

Step 6 – Determine the Denominator: the patients that have completed at least 10 sessions of pulmonary rehab within a 3 month time period. All 12 patients who completed the performance measure assessment also completed at least 10 session of pulmonary rehab during a 3 month time period, so the Denominator “D” is 12.
Step 7 – Determine the Numerator: the patients that have met the MCID for Improvement in Dyspnea, using a supported assessment tool, (in this case, the 6MWT). The MCID for the 6MWT is an improvement 98.43 feet. 9 patients have met the MCID, so the Numerator “N” is 9.

Improvement in Functional Capacity Results

• Step 8 - Using the Algorithm: N/D x100, calculate the percent (%) of patients with COPD & ILD, who completed the performance measure for functional capacity (6MWT), who completed 10 sessions of PR within a 3 month period and who improve their functional capacity by MCID
  • N = 9, D = 12, thus 9/12 = 75%

Data Extraction – Health-Related Quality of Life

Step 5 – Review your data to determine that the patients have completed the performance measure at program entry and program discharge. For the Health-Related Quality of Life assessment (CAT), all 14 patients completed the assessment at program entry and program discharge.
Step 6 – Determine the Denominator: the patients that have completed at least 10 sessions of pulmonary rehab within a 3 month time period. All 14 patients who completed the performance measure assessment also completed at least 10 session of pulmonary rehab during a 3 month time period, so the Denominator “D” is 14.

Step 7 – Determine the Numerator: the patients that have met the MCID for Improvement in Dyspnea, using a supported assessment tool, (in this case, the CAT). The MCID for the CAT is a decrease of 2 points. 7 patients have met the MCID, so the Numerator “N” is 7.

Improvement in Health-Related Quality of Life Results

• Step 8 - Using the Algorithm: \( N/D \times 100 \), calculate the percent (%) of patients with COPD & ILD, who completed the HrQoL (CAT) performance measure, who completed 10 sessions of PR within a 3 month period and who improve their dyspnea by the MCID
  \[ N = 7, \ D = 14, \ \text{thus} \ 7/14 = 50.0\% \]
Performance Measures Summary

• Improvement in Dyspnea: 46.2%
• Improvement in Functional Capacity: 75.0%
• Improvement in Health-Related Quality of Life: 50%

So . . . What do we do with this data?  
We create performance improvement projects to help our patients manage their chronic lung disease better!  
Which will improve our performance measure scores!

The Registry & Certification Applet

The Registry & Program Certification

AACVPR Program Certification

• Registry enhancements were designed to align with the 2018 Program Certification application requirements and the Performance Measures
• Registry Committee is providing continued cross-promotion of the registry to certified programs (use of the Applet)
• Several AACVPR Registry User Resources are available
Registry Calculations Applet

Registry User Resources & Registry Committee

Enrollment Process Overview
- Principal User Form
- Participation Agreement
- Registry Trainings
  - Registry Training Webinar
  - Data Entry Training Exercise
- Access to Live Registry
www.aacvpr.org/registry
New resources include:

- Enrollment checklists
- New user/training checklists
- Updated training videos
- 2017 Annual Meeting PowerPoint Presentations
- Registry User Newsletter

User Resource:
Registry Training Videos

Now includes:

- Data collection process
- Data entry & overview of data validation & error checking
- Reporting Features
- Use of Registry Data & Reports for QI Projects
- Typical Record Management Issues
- Other FAQs

Registry Newsletter

The registry newsletter includes:

- User Case Studies
- Resource Highlights
- FAQs
Registry Super User Group
Call for Volunteers

- Are you interested in helping shape the future of the AACVPR CR and PR Registries? Would you like to share your practical applications of registry data with other registry users to help improve outcomes?
- Consider joining the AACVPR Registry Committee - Super User Group!
- Email: registry@aacvpr.org for more information

QUESTIONS?

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