THANK YOU
AACVPR Registry Sponsors

The AACVPR Outpatient Pulmonary Rehabilitation Registry is endorsed by:

Objectives

• Overview of data quality & completeness techniques
• Review registry reporting features & clinical use of reports
• Overview of registry user resources on AACVPR website
• Overview of how to look at your program and data differently
  – THINK OUTSIDE THE BOX!
• Q & A

AACVPR Cardiac Registry Program Distribution
Cardiac Registry Subscriber Statistics

• 500+ Active Cardiac Programs
• 81% program retention rate
  95 Programs need to renew by 10/15/18 or access blocked
• 83% of Cardiac Registry Programs are Certified
• 32% of AACVPR Certified Programs use the registry

Cardiac Registry Patient Records

Total Cardiac Registry Patient Record Count

Over 300,000 patient records by Aug 2017.
408,909 patient records as of August 31, 2018

Registry Function

• Track patient outcomes and program performance
• Facilitate quality improvement projects
• Benchmark results against national averages and similar programs
• Collect data for Performance Measures for AACVPR Certification
  What is ONE change that you can make in your rehab process to help you increase your percentage if you achieved 100%, how do you plan to maintain your percentage as you continually work to improve your patient outcomes?
• Enhance communication with administrators and physicians
• Promote the role of cardiopulmonary rehabilitation, within value based care, in managing chronic cardiac and pulmonary diseases
Data Collection and Program Performance

- Value Based Care
- Performance Measures
- How do you measure the quality of care provided?
- How do you identify opportunities for improvement?
- What does your data show?
- Do you know why patients do not enroll or drop out?

How to Identify Patients that Dropout

Identify Patients Who Dropout

STEP 1: Filter your patients based on the set of criteria.

Your current filter criteria

Number of patients: 133

Filter Utility

Section: Discharge Information
Field: Program Complete

Add Criteria

Your current filter criteria

Number of patients: 39

Filter Utility

Section: Discharge Information
Field: Program Completed

Add Criteria

9/10/2018
5 of 36 patients that dropped out are for: “not interested” or “unknown” reasons.

How to Identify Patients that Do Not Enroll

STEP 2: Filter your patients based on the a set of criteria.

Identify Patients that Did Not Enroll

STEP 3: Filter your patients based on the a set of criteria.
20 of 175 patients that did not enroll are for: “not interested” or “unknown” reasons.

AACVPR Registry and AACVPR Certification Performance Measures

- **Review** the definitions of all Registry data point fields. (this is located on the AACVPR Registry Resources page)
- **Understand** the performance measures so you can effectively review and describe your patient outcomes.
- A patient is defined as having completed CR when they have had a final, formal discharge assessment session and updated ITP.
- Ensure all patients that have completed your program are entered into the registry, and that their data records are as accurate and complete as possible.

AACVPR Certification Performance Measure: Blood Pressure

% of pts. who have optimal blood pressure control at program discharge

Exclusions:
- Patients with LVAD
- Patients with a medical / surgical contraindication to BP measurement
AACVPR Certification Performance Measure: Depression

% of pts. with a positive depressive screen who decrease depressive symptoms measured by changes in PHQ-9, BDI II, PRFS or HADS

Exclusions:
* Inability to complete the depression tool with reasonable accommodations
* Limited comprehension
* Language barrier

PRFS score is located further down the page

AACVPR Certification Performance Measure: Functional Capacity

% of pts who increase functional capacity by graded exercise testing (15%), exercise session peak METS (40%) or 6 MT (10%)

Exclusions:
* Patients unable to participate due to physical, cognitive, neurological, psychological, or safety reasons
* Patients who have not completed 4 weeks of CR.

AACVPR Certification Performance Measure: Tobacco Use Intervention

% of pts. who received a tobacco cessation intervention if current tobacco user -- OR -- received relapse prevention intervention

Tobacco use tracking should include cigarettes, cigars, cigarillos, chew tobacco, and e-cigarettes.

Registry options for Tobacco Status:
- Never Smoker
- Current (< one month)
- Recent (1—6 Months)
- Former (>6 Months)
- Status Unknown

Tobacco Counseling Options:
- None
- Counseling
- Pharmacotherapy
- Referral to Specialist
- Tobacco Intervention not Indicated
AACVPR Registry Reporting Capabilities

- Individual Patient Report
- Program Outcomes Summary – program overview
- Program Comparison Report – compare to others
- Program Performance Report – benchmark
- Data Extraction Feature – digging deeper

Now that you have printed the reports, what do you do with them?

2018 CR Performance & Quality Measures

- 2018 ACC/AHA Clinical Performance and Quality Measures for Cardiac Rehabilitation. Thomas RJ et al, JACC, 4-24-18
- Quality Measures
  - Time to enrollment within 21 days of hospital discharge
  - Adherence >36 sessions
  - Communication: patient enrollment, adherence and clinical outcomes to focus on Care Coordination

Cardiac Individual Patient Report

- Engage patients into taking ownership of their health
- Review with patients at discharge
- Send to referring MD, Cardiologist, Pulmonologist, Primary Care
- QM - Communication
- Send to EMR
Cardiac Program Outcomes Summary

- Completed patients within a specified time
- Identify QI Projects
- Promote your program
- Share with Medical Director & Administrators / Leadership
- Review at Cardiology monthly meeting

Does the data represent what you expect to see? BMI Data Extraction example

- Are the pre/post changes appropriate?
- What is the % improvement? What is your program goal for % improvement?

QI Project:
- If no data for outcome tools (diet, psychosocial), how can you improve in collecting the data from your patients?

Cardiac Program Comparison Report

- Compare program data with other programs
- Identify QI Projects
- Is your data comparable?
Cardiac Program Comparison Report

- How does your program compare?
  ie: 6 MWT and METS

- Compare the “magnitude of change” not necessarily the values.
  ie: Rate Your Plate
  Program A: 55 – 60 = 5 pts
  Comparison: 52 – 57 = 5 pts
  (reflection of patient make-up)

Cardiac Performance Report

The first number represents the % of records
Male = 75 %
Female = 25 %

[N] = represents number of records
Male = 135 patients
Female = 44 patients

Completion Index (CI) value shows data completeness
The first number [N] is the number of records that have data entered.
The second number [CI] is the percentage of the number records in the query that N represents.

- Identify missing data
- Promote your program
- Identify QI projects / Performance Measures for Certification
- Compare program outcomes with benchmark metrics to prove your program provides value
Comparing your program

To Comparison Group:
Less METS
Higher % at exercise habit goal

To Median:
Less METS
Higher % at exercise habit goal

Cardiac Performance Report

Data Extraction Example

• BMI always the same – quarterly, yearly
• Patients not losing weight
• How can we improve weight loss for patients
• Look at the data differently
Data Extraction Example

Step 1

How to extract my patient data

Step 2

Filter your patients based on a set of criteria.

Discharge Date

Filter Utility

Surname: Discharge Information

Filtering Criteria

Surname: Discharge Information

Filtering Criteria

Year current filter criteria

Discharge Date (mm/dd/yyyy)

Refinement

Refinement

Number of patients: 12

Data Extraction Example

Step 3

Filter Utility

Surname: Discharge Information

Filtering Criteria

Surname: Discharge Information

Filtering Criteria

Year current filter criteria

Discharge Date (mm/dd/yyyy)

Refinement

Refinement

Number of patients: 12
Data Extraction Example
Step 4

Excluded
Heart
Transplant
patients

Data Extraction Example
Excel Report
Data Extraction:

Weight loss example

37 total patients

- **Weight Gain**
  - 10 patients gained total 124 lbs
  - 12.4 lbs per patient

- **Weight loss**
  - 62% of patients
  - 23 patients lost total 134 lbs
  - 5.8 lbs per patient

- **Weight Maintained**
  - 4 patients

Questions to Ponder

- What is Cardiac Rehab?
- Who are your stakeholders and what do they think Cardiac Rehab is?
- Why does your program do the things the way you do?
- Why should MD’s refer and pts come to your program?
- Program Certification – 1 change to improve outcomes!
- What makes your program GREAT?

Cardiac Rehab is a Business?

- Relationships are key
  - Sell to providers / patients / leadership
  - 30 second “elevator” conversation
  - Why are patients not enrolling or dropping out – “Not interested” or “unknown” should not be acceptable answer
- Increase functional independence
- Save Institution on penalty’s by decreased readmissions
Reframe Your Thinking

• No Problems → Only Opportunities
• Sell your program
• Pay for Value
• Show your patients the quality of life and improved functional independence they can achieve!

Practical Use of Registry Reports

<table>
<thead>
<tr>
<th>Volume</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrolled</td>
<td>148</td>
<td>176</td>
<td>180</td>
<td><strong>152</strong></td>
<td><strong>265</strong></td>
</tr>
<tr>
<td>Completed</td>
<td>132</td>
<td>123</td>
<td>139</td>
<td>119</td>
<td>190</td>
</tr>
<tr>
<td>Dropped Out</td>
<td>19</td>
<td>33</td>
<td>46</td>
<td>52</td>
<td>44</td>
</tr>
</tbody>
</table>

• Program Outcomes Report and Data Extraction: look for trends
  • diagnosis and age
  • number of sessions completed
  • drop-out reasons
  • Staff, procedures, space, resources, etc.

Practical Use of Registry Reports

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean # completed sessions</td>
<td>23</td>
<td>26</td>
<td>24</td>
<td><strong>26</strong></td>
<td><strong>25</strong></td>
</tr>
<tr>
<td>Mean program duration (days)</td>
<td>58</td>
<td>62</td>
<td>63</td>
<td><strong>72</strong></td>
<td><strong>66</strong></td>
</tr>
<tr>
<td>Mean wait time (days)</td>
<td>12</td>
<td>16</td>
<td>24</td>
<td><strong>20</strong></td>
<td><strong>32</strong></td>
</tr>
</tbody>
</table>

• Program Outcomes Report
• Program Comparison Report
• Performance Report
<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>6 MWT ( % improvement)</strong>*</td>
<td>21%</td>
<td>32%</td>
<td>34%</td>
<td>22%</td>
<td>36%</td>
</tr>
<tr>
<td><strong>Exercise Compliance</strong></td>
<td>6 days / wk 49 minutes</td>
<td>6 days / wk 42 minutes</td>
<td>6 days / wk 45 minutes</td>
<td>5 days / wk 42 minutes</td>
<td>5 days / wk 38 minutes</td>
</tr>
<tr>
<td><strong>METS ( % improvement)</strong>*</td>
<td>3.8 METS 40%</td>
<td>4.5 METS 55%</td>
<td>4.8 METS 60%</td>
<td>3.5 METS 38%</td>
<td>4.1 METS 45%</td>
</tr>
<tr>
<td><strong>BMI (BMI score at discharge)</strong></td>
<td>29 M 29 F</td>
<td>29 M 29 F</td>
<td>28 M 29 F</td>
<td>30 M 30 F</td>
<td>30 M 27 F</td>
</tr>
<tr>
<td><strong>BP at goal ( % completed patients)</strong></td>
<td>85%</td>
<td>97%</td>
<td>84%</td>
<td>99%</td>
<td>92%</td>
</tr>
<tr>
<td><strong>Rate Your Plate ( % improvement)</strong></td>
<td>N/A</td>
<td>3%</td>
<td>6%</td>
<td>18%</td>
<td>16%</td>
</tr>
<tr>
<td><strong>PHQ9 Depression ( % improvement)</strong></td>
<td>49%</td>
<td>45%</td>
<td>48%</td>
<td>52%</td>
<td>50%</td>
</tr>
<tr>
<td><strong>Dartmouth QOL ( % improvement)</strong></td>
<td>33%</td>
<td>34%</td>
<td>23%</td>
<td>28%</td>
<td>23%</td>
</tr>
</tbody>
</table>

**Use of Registry Reports**

- Define your CP Rehab program to patients, MD’s and Leadership
- REVIEW the reports – do the numbers make sense and represent your program accurately?
- Identify missing data or errors
- How does your program compare and perform?
- Identify QI projects – Program Certification
- Show your program’s worth – VALUE OF CARE!
- Promote your program to.....EVERYONE!

**Take Time to Relax!**