



**Indiana Society
of Cardiovascular &
Pulmonary Rehabilitation**

A Manual for Measuring Clinical Program Outcomes in Cardiac and Pulmonary Rehabilitation

Compiled and written by
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Chair – Indiana Outcomes Committee

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The Indiana Society of Cardiovascular and Pulmonary Rehabilitation
would like to thank Orion Software Development for their continued support.
Thank You!



<http://www.orionsoftwaredev.com/>

PREFACE

Original Preface

In December of 1995 the Northeast Network of the Indiana Society of Cardiovascular and Pulmonary Rehabilitation took up the challenge of developing tools for the collection of clinical outcomes in cardiac and pulmonary rehabilitation. The goal at that time was to develop several tools that could be administered to patients in an effort to measure the clinical benefits of rehabilitation as it relates to the outcome domains of Behavioral, Clinical and Health. By July of 1996 a six-month pilot program was initiated to test the practical application of these outcome tools.

As excitement grew for the process of measuring outcomes, there was the realization that these tools could easily be adapted for use in cardiac and pulmonary rehabilitation programs throughout the state. Recommending the use of standardized outcome tools would enable every program to begin collecting clinical outcomes without reinventing the process. In addition, statewide outcome data would be useful to the process of seeking reimbursement for cardiac and pulmonary rehabilitation on a state and national level.

As recommended by the Outcomes Committee, the ISCVPR Board of Directors has endorsed these tools for use in a statewide program measuring outcomes in cardiac and pulmonary rehabilitation. The Board of Directors invites and encourages all cardiac and pulmonary rehabilitation programs in the state to participate in this program. All patient and program data will be held in the strictest confidence and will not be released without proper authorization.

The following manual is provided to help your program get started measuring clinical program outcomes.

Addendum:

The original preface was written in early 1997. Today, the ISCVPR Outcomes Program, a not for profit program, is used in over 30 states by hundreds of cardiac and pulmonary rehabilitation programs. At this point in time, there is a greater need to move away from the development of statewide outcome projects toward the development of a comprehensive national database. To help facilitate this move toward a national database, both Quinton Instruments and Life Sensing Instruments, manufacturers of telemetry units, have decided to halt the development of their own outcomes software in favor of the software developed by Orion Software Development for the ISCVPR Project. In addition to moving forward in the development of a national database, the ISCVPR is working to bring a new level of outcomes to each program. Initial outcome measures look primarily at session-to-session trends related to treatment. This created the first level of outcomes, which is found in "outcome" software developed and marketed by the telemetry manufacturers. The ISCVPR stepped to the second level in 1997 with program outcome measurement based on the use of widely accepted outcome tools. In this upgrade, the ISCVPR begins the move toward the third level of outcomes called "Risk Profiling." The ultimate goal of rehabilitation is to reduce the risks of our patients through lifestyle change. To secure reimbursement for our services in the future rehabilitation professionals must demonstrate their ability to change the long-term behaviors and lifestyles of our patients. Outcomes will help you to demonstrate this ability and ultimately demonstrate your competence and your program performance.

*Steven Jungbauer, MA, MBA, FASEP, FAACVPR
Board Certified Exercise Physiologist*

ACKNOWLEDGEMENTS

The Indiana Society of Cardiovascular and Pulmonary Rehabilitation (ISCVPR) wishes to extend their deepest appreciation to the follow people and programs for their time and effort in the development of these outcome tools.

Indiana Society of Cardiovascular and Pulmonary Rehabilitation Outcomes Committee

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Huntington, Indiana

The ISCVPR wishes to extend a special thanks to **Brandon Fuller, President, Orion Software Development**, for his time and effort in the development of a computer database to track and analyze outcome data for cardiac and pulmonary rehabilitation. Brandon has made a long-term commitment to maintain a state of the art computer program to track outcomes in cardiopulmonary rehabilitation. Orion Software has become the national leader in outcome software for medical



Pilot Programs

Cameron Memorial Hospital
Angola, Indiana

Huntington Memorial Hospital
Huntington, Indiana

Kosciusko Community Hospital
Warsaw, Indiana

Lutheran Hospital of Indiana,
Fort Wayne, Indiana

Parkview Memorial Hospital
Fort Wayne, Indiana

The Heart Center Fitness Club
Fort Wayne, Indiana

Wabash County Hospital
Wabash, Indiana

Whitley County Hospital
Columbia City, Indiana

The ISCVPR wishes to extend a special thanks to **Debbie Pacillas, RN, Rio Vista Hospital, El Paso, Texas**, for her time and effort in the Spanish translation of the written tools for the ISCVPR Outcomes Program. Debbie and her staff have also begun work on an updated knowledge test for cardiac rehabilitation. Their commitment to rehabilitation is clearly evident in the extra effort they provide to assist programs throughout the nation. Thank you!

SECTION I: CLINICAL OUTCOME MEASUREMENT

CHAPTER 1: MEASURING CLINICAL OUTCOMES

Introduction

For years, obvious clinical improvement recognized by both the patient and the clinician has not been documented in the medical field. Positive responses to “How do you feel?” have been sufficient to identify successful treatment. Many clinicians feel documentation of patient improvement is not necessary. While it is relatively easy to convince oneself of this patient improvement, it is another matter to convince someone else of the same improvement without the availability of quantitative data. For example, consider the qualitative comment that a patient has “improved physical function,” versus quantitative data that “physical function increased 10 METs.” While both versions convey valuable clinical information, only the quantitative data allows all rehabilitation clinicians to recognize patient improvement. Quantitative data allows the comparison of different rehabilitation patients and programs. This same quantitative approach allows the comparison from one point in time to another for the same patient or rehabilitation program. Quantitative data also provides the means for program performance review and analysis by other stakeholders, including other healthcare providers and third party payers.

As managed care continues to grow, cardiac and pulmonary rehabilitation programs will be asked to “prove” their worth. Outcomes are the tools to “prove” or validate program performance and the benefits patients receive from program participation. In addition, outcome measurement and reporting demonstrates accountability for the quality of patient care. Across the nation, hundreds of programs are collecting outcome data in an effort to demonstrate and report program effectiveness. However, this data has little meaning without test standardization and the ability to benchmark data with other programs.

To meet this standardization and benchmarking challenge the Indiana Society of Cardiovascular and Pulmonary Rehabilitation (ISCVPR) initiated a comprehensive and ongoing outcomes program. The ISCVPR Outcomes Program provides cardiac and pulmonary rehabilitation programs with the tools to measure outcomes and the opportunity to benchmark program performance with other programs. The outcomes, which will be measured over ten years, include many parameters that fall into the clinical, behavioral, health, economic, and service outcome domains. The outcomes program began in June of 1997 and has rapidly grown to include programs throughout the United States.

In December of 1995 the Northeast Network of the ISCVPR began selecting tools and developing guidelines for the collection of outcomes in cardiac and pulmonary rehabilitation. The primary goal at that time was to demonstrate for the Indiana Medicare Intermediary that 36 rehabilitation sessions provided greater benefit to the patient than the 12 sessions they reimbursed for cardiac rehabilitation. Tools for the pilot study were selected based on the following recommendations from the American Association of Cardiovascular and Pulmonary Rehabilitation (AACVPR) Outcomes Committee:

- Outcome measurements should be integrated into routine clinical practice.
- The test should be at low or no cost to the patient.
- The tools selected should provide relevant and meaningful results.
- The testing protocols should be easy to administer and directions should be understandable to the patient and clinician.
- The tools should produce the same result when administered to the same patient or when administered by different clinicians.
- The tools should be valid measures of the desired characteristic.
- The tools should be sensitive enough to measure the changes resulting from programs of intervention.

In addition to the AACVPR selection guidelines, the SF-36V2™ Health Survey was selected because it is widely used and recognized among healthcare payers. **(In August of 2008 all information on the SF Quality of Life tools were removed from this manual at the request of QualityMetric.)** While treadmill stress testing is the gold standard, the six-minute distance walk provided a low cost and easily administered alternative test of physical function. In addition to measuring quality of life and physical function, it was felt that patient knowledge tests provided a means to examine the effects of patient education. Additional outcome measures were included through patient self-reporting, review of medical records, or additional laboratory testing.

By July of 1996, the six-month pilot study was initiated to test the practical application of these outcome tools and refine program guidelines. The pilot study was funded in part by an affiliate grant from the AACVPR. Following the pilot study, appropriate changes were made to the program guidelines and an implementation plan was formulated to facilitate the initiation of a statewide outcome project. As recommended by the Indiana Outcomes Committee, the ISCVPR Board of Directors endorsed these tools for use in a statewide program measuring outcomes in cardiac and pulmonary rehabilitation.

Why Collect Clinical Outcome Data

Collecting and analyzing information on the benefits your patients' experience from participating in your rehabilitation program are invaluable in many ways. The data can be used to:

- Show potential patients how successful your rehabilitation program is. It can help you focus on the health benefits of behavior change, education, and exercise when talking to them.
- Focus on the clinical outcomes experienced by your patients when talking to referring physicians. This will help increase your program referrals.
- Demonstrate to hospital department heads and administration how beneficial the rehabilitation program really is for improving the health of patients in the community.
- Clarify for managed care groups and insurance companies the medical benefits and subsequent cost savings of treating their insured members. This may gain you additional insurance coverage. Furthermore, positive outcomes may earn your program a place among centers of excellence or preferred programs.
- Outcome measurement is required by Joint Commission and for AACVPR Program Certification.
- Contribute to a nationwide database capable of benchmarking the best practices in cardiac and pulmonary rehabilitation. This information can be used to dramatically improve your program's performance and enhance your patients' outcomes.

Outcome Domains

Outcomes associated with medical intervention are classified into at least four outcome domains. These domains include measures that are related to clinical, behavioral, health and economic changes. In addition there has been a move by the AACVPR Outcomes Committee to add a fifth domain and call it the service domain. The clinical domain generally includes measures, which are objectively measured and quantifiable in nature. The behavioral domain focuses on measuring the patient's ability to make and sustain lifestyle changes while the health domain measures demonstrate the patient's perception of how the intervention has impacted the quality of their life. The economic domain evaluates the direct and indirect monetary cost to the patient, health system, and society as a whole. In the service domain you can

expect to measure the satisfaction of patients, physician and other stakeholders in the rehabilitation process. The following table provides some examples of outcomes measures in all five domains.

Outcome Domain	Measure
Clinical	Heart rates, blood pressures, distance walked, MET's, lipids, blood sugar, body weight, percent body fat, BMI, oxygen saturation, oxygen flow rates, lung volumes
Behavioral	Smoking, exercise, diet, medications, stress, weight management, patient education
Health	Morbidity, mortality, quality of life
Economic	Hospitalization, emergency visits, physician visits, rehabilitation charges/costs, medication costs,
Service	Patient, physician, and stakeholder satisfaction

Levels of Outcome Measurement

Session Trending

Outcomes in cardiopulmonary rehabilitation can be measured and reports in three hierarchical levels. The first level of outcome measure is obtained through *session trending*. This method, which is the lowest level of outcome monitoring, looks at the clinical intervention process from session to session. For example by trending the exercise MET level one could determine if the clinician uses appropriate principle of exercise progression to produce consistent patient improvement throughout the course of exercise intervention. This level of outcome monitoring is available through most telemetry units.

Program Outcomes

The next level of outcome measurement is obtained when specific outcome tools are administered prior to and following a program of intervention. These tools measure one or more of the outcomes associated with an outcome domain. This level of outcomes is simply called program outcomes. Most state outcome programs use this level of measurement.

Risk Profiling

Ultimately, the job of the cardiopulmonary rehabilitation clinician is the reduction of risk or further complication associated with the disease process. Outcomes that address changes in the risk factors associated with a specific disease constitute the highest level of outcome measurement in cardiopulmonary rehabilitation. This process is also called "Risk Profiling," and is now the primary focus of the Indiana Outcomes Program.

Standardization of Testing

Standardization of the testing process is imperative to ensure the ability to compare data between testing periods and to compare data between programs. This manual provides comprehensive instructions on test administration. The integrity of the program rests on the ability of the clinician to properly and accurately administer the outcome tools.

Outcome Program Design

Outcome program design, by the very nature of its purpose, differs from research design. Remember that outcomes measure the effectiveness of various program components. So the selection of tools, to whom they are administered, and how you will use the results determines you will design your outcome process.

While many similarities exist they diverge at several points. Research and outcomes are similar because both try to randomize patients and standardize testing. They differ because the researcher would contend that all patients must receive all testing. The volume of patients and number of testing protocols in outcome measurement prohibits each patient from completing all outcomes testing. Programs with high patient volumes are encouraged to randomize the patients who receive each test. For example, your first patient might receive the six-minute walk, the second a health status survey, and the third patient would complete the knowledge test. This rotation is maintained to continue the randomization process. At all subsequent follow-ups, the patient receives the same test they performed pre program. Each of these outcome tests are administered following the standardized process outlined in this manual.

Please note that this outcomes project is designed to measure and track outcomes for patients who participate in phase two cardiac and pulmonary rehabilitation. You can not include patients from other phases or disease management programs unless they have participated in phase two.

How to Start Collecting Clinical Outcome Data

Start with just one patient! You may think that managing outcome data requires a great deal of time and effort. In this manual, you will find everything you need to administer, record, and track your data. The system has been tested and refined to make measuring your program outcomes easy. Just follow the steps and protocols provided in this manual.

The Steps to Measuring Clinical Outcomes

1. Carefully read this manual. If you have additional questions, contact Steven Jungbauer or Orion Software Development. In addition, there are programs in your area using this outcomes program who would be happy to share their experience.
2. Purchase the Orion Outcomes Cardiac and Pulmonary Rehabilitation from Orion Software. Over the years, this software has proved to be extremely valuable to track program level outcomes and analyze data.
3. Accurate and complete data is essential. Please complete all forms and administer each test according to the instructions provided in this manual. **Do not change or modify any test or procedure.** Standardization is the key to successful collection, analysis, and benchmarking of outcome data.

**DO NOT change or modify any outcomes test/tool.
DO NOT substitute a test of your choice for test included in this outcomes program.**

4. Select a program name that corresponds to the name of your hospital. Cardiac Rehab, Pulmonary Rehab, and any generic combination of these words are UNACCEPTABLE. Using the name of your hospital is very helpful. Special names like Mending Hearts, Pink Puffers, etc are difficult to track. Also, be sure to enter you zip code, which is a required field. Programs are tracked by both their name and zip code. This is an important feature when hospitals have multiple sites, there are multiple hospitals in the same city or when hospitals merge. The profile that you provide is used for correspondance. If you have a change of information please change the program profile in your computer system. If you have both cardiac and pulmonary rehabilitation you will need to have two profiles even if the information is the same. If you do not have cardiac or pulmonary rehabilitation only provide a program profile for the program that you have.

Use your hospital name for your program profile name. DO NOT use cardiac or pulmonary rehab or any combination of these or similar words. The name you choose will be used to identify your program nationally.

5. Select your first patient. Some programs choose to administer each outcome tool to every patient that enters their program. Many programs provide only one outcome test to each patient that enters the program. If you do not administer each test to each patient that enters your program you must randomize the patients that participate. For example, the first patient may complete a health status survey, the second patient completes the knowledge test, and the third patient through the door does the 6-minute distance walk. This same rotation is then keep for all additional patients that enter the program. *Selection for inclusion based on willingness to participate does not provide a randomized sample of your patient population.*
6. Have them take the Written Knowledge Test after they complete the a health status survey.
7. Administer the Six-Minute Distance Walk and record the data on the Outcome Data Sheet.
8. Complete a Lipid profile or obtain the results from the patient's physician (cardiac rehabilitation).
9. Enter the data into the Orion Outcomes. Check your data for accuracy. Many errors occur while entering data. Take your time and double check your entries. When data is imported into the national database it is scanned for accuracy and inaccurate data is excluded. You will receive and error log to assist in the correction of data errors. Have the patient complete the Rehabilitation Program.

At graduation or the completion of services, and at all subsequent follow-up session you must administer the same outcome tools/tests that were administered pre program.

10. At the last exercise session, re-administer the Six-Minute Distance Walk prior to exercise and record the data.
11. Administer a health status survey at the completion of services.
12. Have the patient take the Written Knowledge Test after they complete a health status survey.
13. Perform the post program lipid profile (cardiac rehabilitation).
14. Enter the data into the Orion Outcomes. Check your data for accuracy.
15. You can generate a patient report through the Orion Outcomes.
16. Export (via Internet or diskette) and/or send your disk/data into the national database at regular intervals. The Orion Outcomes will default to reminding you to export every 90 days.

Follow-up Evaluations

17. Set up a return visit six months from the start date of the rehabilitation program to re-administer all testing. Use the tracking report in Outcomes Data Management System to identify when patients are required to return for follow-up evaluations.
18. Enter the data into the Orion Outcomes. Check your data for accuracy.
19. Export or send your data into the national database each quarter.
20. Set up a return visit one year from the start date of the rehabilitation program to re-administer all testing.
21. Enter the data into the Orion Outcomes. Check your data for accuracy.

22. Export or send your data into the national database.

**The administration of outcomes can be time consuming. Some programs randomly alternate the use of a health status survey, Six-minute Distance Walk, Knowledge Test, and other tools between patients. This greatly reduces administration time. The same test should then be given to each patient at all the follow-up tests. This option uses patient samples to evaluate program component effectiveness.*

Program information and data or disks should be exported via the Internet.

Steven Jungbauer, MA, MBA, EPC, FAACVPR, FASEP

Board Certified Exercise Physiologist

Email: steve@orionoutcomes.com

Confidentiality of Patient and Program Information

In accordance with medical practice standards and guidelines, all patient and program information will be held in the strictest confidence and will not be released without proper authorization. No patient names will ever be reported and program names will only be released with permission for the purpose of benchmarking best practices in Cardiopulmonary Rehabilitation. The Outcomes Data Management System from Orion Software Development meets or exceeds all HIPPA standards.

Each program should implement procedures for informing the patient that their data will be used to measure program effectiveness which includes outcome analysis and benchmarking of program data. This is generally accomplished through each programs informed consent.

Indiana Society of Cardiovascular and Pulmonary Rehabilitation

Patient and Program Confidentiality Contract

RE: Confidential Information in Outcomes and Benchmarking

Ladies and Gentlemen:

As a condition precedent to my acting as central database of outcomes and benchmarking for the Indiana Society of Cardiovascular and Pulmonary Rehabilitation, this letter sets forth and confirms my understandings and agreements with you pertaining to certain of my responsibilities and legal obligations to the Indiana Society of Cardiovascular and Pulmonary Rehabilitation (“ISCVPR”) and to third-parties providing data (“Participants”).

1. I understand that in the course of my acting as a central database, I will or may be making use of, acquiring or adding to confidential information of a special and unique nature and value relating to Participants. I also understand that any information and materials received from the Participants will be deemed to be and will be confidential information. I hereby confirm that I have not and will not, except with the express, prior written consent of the ISCVPR and any Participant, at any time, directly or indirectly, disclose, divulge, reveal, report, publish, transfer or use, for any purpose whatsoever, any of such confidential information which has been obtained by or disclosed to me as a result of my acting as a central database.
2. At ISCVPR’s request, or, in the absence of such a request, upon termination of my acting as a central database, I agree to turn over to ISCVPR all confidential information, including, but not limited to computer files or information contained on other electronic or digital media, notes, data, tapes, lists, reference items, sketches, drawings, memoranda, records, including all copies of any of the foregoing, and all other material in any way relating to any outcomes Participants, and all other information contained on any tangible medium of expression which is in my possession or control respecting any Outcomes Participant.

Sincerely yours,



Steven Jungbauer, MA

Dated: 4-20-1998

ACCEPTED:

ISCVPR

By: Susie O. Carter - President
Authorized Representative

Adding Outcome Tools to the Program

Since 1997, the ISCVPR has sought to provide the most cost effective outcomes program available to cardiopulmonary rehabilitation programs of all sizes. With the addition of various outcome tools the cost of covering licensing fees and technical support increases. With this cost effectiveness in mind we welcome your comments and suggestions for changes in the Orion Outcomes to our available outcome tools.

To make suggests related to the working structure of the Orion Outcomes, please contact Steve Jungbauer at steve@orionoutcomes.com or Brandon Fuller at Brandon@orionoutcomes.com . It is our intent to review all suggestions and incorporate those suggestions that add to the functionality of the program.

The ISCVPR does not support or encourage the use of outcome tools that have not been statistically tested. Please submit tests with appropriate research documentation.

To submit additional outcomes tools for inclusion please send a copy of the tool and the rational for its use and inclusion in the ISCVPR Outcomes Program. All tools are considered based on the selection criteria presented earlier in this manual. This information can be sent to Steve Jungbauer, 121 EMS T-27 Lane, Leesburg, IN 46538

Cardiopulmonary Rehabilitation Outcomes on the Internet

The Internet is our primary medium for the distribution of outcome information. The following sites all contain important information to help make outcomes collection and reporting easier.

Indiana Society of Cardiovascular and pulmonary Rehabilitation – <http://www.iscvpr.org>

Orion Software Development – <http://www.orionsoftwaredev.com>

CHAPTER 2: PROGRAM INFORMATION

Program Profile

Each cardiac and pulmonary rehabilitation program that participates must complete the program profile form. This program profile will be exported with your data for benchmarking. Most of the information contained on this form is self-explanatory. Determine what the normal course of treatment includes and use this to complete the form. Some of patient treatment plans are individualized to meet specific patient needs. This is fine and is an expected part of every program. The program data, depending on the number of patients reported, will reflect a normal or average course of treatment.

Program Profile Sheet

Be sure to complete a profile sheet for Cardiac Rehabilitation and one for Pulmonary Rehabilitation if you provide both programs.

Hospital Name: _____
Address: _____
City: _____ State: _____ Zip: _____
Contact Person: _____
Phone Number: _____
Email Address: _____

Program:
 Cardiac
 Pulmonary

Program Type:

- Outpatient - Hospital Based
- Outpatient - Private Practice
- Other _____
- For-Profit
- Non-Profit

Staffing: (Check all that apply)

- Registered Nurse
- Respiratory Therapist
- Exercise Physiologist (MS)
- Exercise Specialist (BS)
- phase 2 starts per month
- Behaviorist or Social Worker
- Non Certified Technician

General Program Length:

_____ Days per Week
_____ Number of Weeks
_____ Number of Sessions
_____ Average number of new patient Dietitian
_____ Number of phase 2 visits per month

Program Components: (Check all that apply)

Exercise Training (used each session):

- Walking or Treadmill
- NuStep
- Stair Climbing
- Stationary Bike
- Arm Cranking
- Rowing
- XC Skiing
- Resistance Training
 - Weights
 - Dyna Bands
- Inspiratory Muscle Training
- Flexibility Training
- Relaxation Training

Teaching Format

- Lecture class
- Teach during exercise
- Self Study
- Videos
- Individual Instruction

(Check all that apply)

- Adheres to AACVPR Guidelines for Rehabilitation
- Follows ACSM Exercise Guidelines
- Rehabilitation Program is certified by the AACVPR

Education Topics:

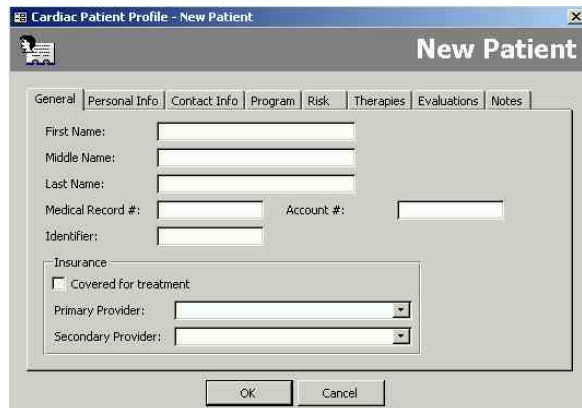
- Disease Process
- Anatomy and Physiology
- Diet and Nutrition
- Behavior Modification
- Risk Factors
- Breathing Retraining
- Bronchial Hygiene
- Medications
- Other Education Topics

CHAPTER 3: PATIENT INFORMATION

Cardiac And Pulmonary Patient Information

When creating a new patient profile follow the instructions below. A data collection sheet is provided for your convenience. The Outcome Data Sheet corresponds to the database entry template. The pulmonary patient information does not include a therapies tab. Each item is numbered and the directions are as follows:

General Information Tab

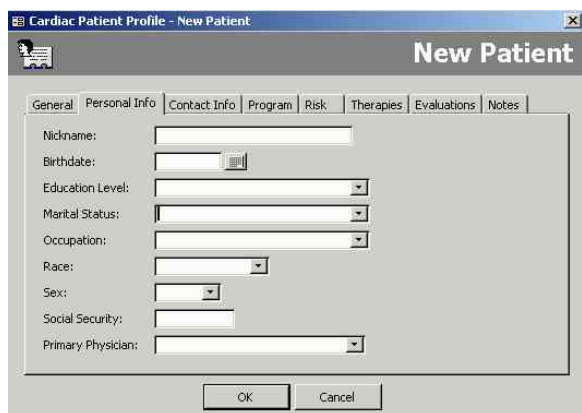


1. **Name** – Enter the patient’s first, middle, and last name.
2. **Medical Record #** - Enter your hospital’s assigned medical record number for this patient. (Not Required)
3. **Account #** - Enter the patient billing account number used at your hospital. (Not required)
4. **Identifier** – This number is your own unique number for each patient.
5. **Covered for Treatment** – If the patient has insurance coverage please check this box.
6. **Primary Provider** – Select the insurance carrier from the pull down menu. This list contains the primary insurance providers nationwide. Remember that in

some cases the plan names may vary but these are normally the carries for all insurance nationwide.

7. **Secondary Provider** – Under secondary provider you can add names or select from the list. Please be accurate with spellings and exactly who is the secondary provider.

Personal Information Tab



8. **Nickname** – Use this if appropriate.
9. **Birthdate** – Enter the patient’s birthdate. Please check to make sure you have entered the correct date.
10. **Education Level** – Select the patient’s education level from the pulldown list provided.
11. **Marital Status** – Select the patient’s marital status from the pulldown list provided.
12. **Occupation** – Select the patient’s occupation from the pulldown list provided. This is a generic government list and may not have a specific job listed. Select an appropriate alternative.

13. **Race** – Select the patient’s race from the pulldown list provided.
14. **Sex** – Select male or female
15. **Social Security** – Enter the patient SSN. (Not required)
16. **Primary Physician** – Enter the patient’s primary care physician. Please use first and last names and check for correct spelling.

Contact Information Tab

17. **Street Address** - Enter the patient's permanent address
18. **City** - Enter the patient's city.
19. **State** - Enter the patient's state. Use the 2 letter abbreviation.
20. **Zip** - Enter the patient's zip code.
21. **Home Phone** - Enter the patients home phone number
22. **Work Phone** - Enter the patients work number if available
23. **E-mail Address** - Enter the patient's e-mail address if available

Program Information Tab

24. **Rehabilitation Program** - Enter your hospital's name or program name will be blank and is entered through the program profile. Please remember not to enter cardiac rehabilitation, cardiopulmonary rehabilitation or and abbreviations or combination there of. Example: Kosciusko Community Hospital
25. **Referring Physician** - Enter the physician that referred the patient to the program.
26. **Primary Diagnosis** - Select the primary diagnosis from the pull down menu.
27. **Secondary Diagnosis** - If there is more than one

diagnosis enter it here by using the pull down menu. The menu includes the most commonly used secondary diagnoses.

28. **Onset Data** - Enter the date that the patient was admitted to the hospital for their MI, CABG, or other procedure. It is possible that the patient was not admitted prior to rehabilitation.
29. **Number of Exercise (Phase 2) sessions completed** - Enter the number of exercise sessions completed in phase 2.
30. **Involved in a maintenance (phase 3 or 4) program** - Check this box when the patient participates in a maintenance program.
31. **Patient is no longer involved in outcomes program.** - Check whether the patient is no longer involved in program (is deceased) This makes the patient inactive in the database.
32. **Did not finish all sessions of the program** - If the patient did not complete the program check this box.

Patient Risk Tab

33. **Risk Stratification** - Use the guidelines provided in the manual to assign a risk level for each patient.
34. **Return to Pre-Rehabilitation Employee** - Select the appropriate response from the pull down menu.
35. **Smoking** - Identify if the patient has always been a non-smoker or at one time was a smoker. If they were a smoker record there quit date if appropriate.
36. **Depression** - Select the appropriate response.

Therapies Tab

37. **ACE Inhibitors** - Check if ace inhibitors apply to patient. [Angiotensin-converting enzyme inhibiting drugs include benazepril (Lotensin), captopril (Capoten), enalapril (Vasotec), fosinopril (Monopril), lisinopril (Prinivil, Zestril), quinapril (Accupril), ramipril (Altace)] (Note: This is by no means a complete listing of drugs in above classes but perhaps the beginning of a much longer list.)

38. **Anticoagulants** - Check if anticoagulants apply to patient.

39. **Antiplatelets** - Check if antiplatelets apply to patient.

[Antiplatelet drugs include aspirin (Bufferin, Ecotrin, other), dipyridamole (Persantine), sulfapyrazone (Anturane), ticlopidine (Ticlid); Anticoagulants include Warfarin (Coumadin, Panwarfin), anisindione (Miradon), dicumarol] (Note: This is by no means a complete listing of drugs in above classes but perhaps the beginning of a much longer list.)

40. **Beta-blockers** – Check if the patient is on beta-blockers. [Betablocking drugs include acebutolol (sectral), atenolol (tenormin), betaxolol (kerlone), bisoprolol (zebta), bisoprolol/hydrochlorothiazide (ziac), carteolol (cartrol), labetalol (normodyne, trandate), metoprolol (lopressor), nadolol (corgard), penbutolol (levatol), pindolol (visken), propranolol (inalderal), timolol (blocadren)]

41. **Estrogen** – Check if the patient is on estrogen. [Estrogen drugs include chlorotrianisene (Tace), diethylstilbestrol (DES, Stilphostrol), estradiol (Estrace, Estraderm, others), estrogens, conjugated (Premarin), estrogens, esterified (Estratab, Menest), estrone (Theelin, others), estropipate (Ogen), ethinyl estradiol (Estinyl), quinestrol (Estrovis)] (Note: This is by no means a complete listing of drugs in above classes but perhaps the beginning of a much longer list.)

42. **Lipid Lowering Drugs**- Check if patient uses a prescribed lipid-lowering agent.

43. **Documentation to allergy or intolerance to all cholesterol lowering agents** – Check this box if appropriate.

Evaluations and Notes Tab

44. Each time an outcome evaluation is performed and entered in outcomes the phase and testing date will appear in this box.

45. Patient Notes can be added to the notes tab and will appear at the bottom of the patient outcome report.

Guidelines for Cardiac Risk Stratification

Lowest Risk No significant left ventricular dysfunction (EF > 50%)
 No Resting or exercise-induced complex arrhythmias.
 Uncomplicated myocardial infarction, coronary artery bypass surgery, angioplasty, artherectomy, or stent. Absence of CHF or signs/symptoms indicating post event ischemia.
 Normal hemodynamics with exercise or recovery.
 Asymptomatic including absence of angina with exertion or recovery.
 No resting or exercise-induced myocardial ischemia manifested as angina and/or ST-segment displacement.
 Functional capacity greater than or equal to 7 MET's
 Absence of clinical depression.

Lowest risk classification is assumed when each of the risk factors in the category is present.

Moderate Risk Moderately impaired left ventricular function (ejection fraction = 40-49%).
 Signs/symptoms including angina at moderate levels of exercise (5-6.9 METs) or in recovery.

Moderate risk is assumed for patients who do not meet the classification of either highest risk or lowest risk.

Highest Risk Decreased left ventricular function (ejection fraction < 40%).
 Survivor of sudden cardiac death.
 Complex ventricular arrhythmias at rest or with exercise.
 Myocardial infarction or cardiac surgery complicated by cardiogenic shock, CHF, and/or signs/symptoms of post procedure ischemia.
 Abnormal hemodynamics with exercise (especially flat or decreasing systolic blood pressure or chronotropic incompetence with increasing workload).

Signs/symptoms including angina pectoris at low levels of exercise (<5.0 METs)
 Functional Capacity less than 5 METs.
 Clinically significant depression.

Cardiac Rehabilitation Risk Factor Analysis

The follow cart taken from the AACVPR Guidelines contains the values used to assess patient risk for risk profiling. Risk profiling will only be complete if tools are used to obtain these measures and they are entered into the database.

Risk Factor	Low Risk	Moderate Risk	High Risk
Blood Pressure	≤ 130/85	131-159/86-99	≥ 160/100
Cholesterol	LDL < 100 CHO/HDL < 3.6	LDL 100-129 CHO/HDL 3.6-5.9	LDL ≥ 130 CHO/HDL ≥ 6.0
Depression	No clinical depression	Evidence of moderate clinical depression	Evidence of significant clinical depression
Diabetes	HbA1c ≤ 7% FBG ≤ 120	HbA1c 8-9% FBG 121-180	HbA1c > 9% FBG > 180

Diet	≤ 20% fat ≤ 7% sat fat ≤ 150 mg chol	20-29% fat 8-9% sat fat 151-299 mg chol	≥ 30% fat ≥ 10% sat fat ≥ 300 mg chol
Exercise	> 240 min/wk > 1500 Kcal/wk	120-240 500-1499 Kcal/week	< 120 < 500 Kcal/week
Smoking	Never/Ex > 6m	Ex < 6m	Smoker
Weight	BMI ≤ 27	BMI 28-29.9	BMI ≥ 30

- Blood Pressure is equal to Resting Systolic or Resting Diastolic
- Lipid Profile include LDL. Take Cholesterol and divide by HDL for ratio
- Depression is from Beck Depression Inventory
- Diabetes either HbA1c or Fasting Blood Glucose can be used. HbA1c is best choice.
- Diet we need to add a diet survey
- Exercise is sessions per week times minutes per session
- Smoking.
- Weight – BMI is equal to weight in kilograms divided by (height in meters)squared

Guidelines for Pulmonary Risk Stratification

Mild COPD FEV₁/FVC < 70%
FEV₁ ≥ 80% predicted
With or without chronic symptoms (cough, sputum production)

Moderate COPD FEV₁/FVC < 70%
FEV₁ < 80% predicted (IIA: 50% ≤ FEV₁ < 80% predicted.
IIB: 30% ≤ FEV₁ < 50% predicted.)
With or without chronic symptoms (cough, sputum production, dyspnea)

Severe COPD FEV₁/FVC < 70%
FEV₁ < 30% predicted or FEV₁ < 50% predicted plus respiratory failure or clinical signs of right heart failure.

CARDIAC PATIENT PROFILE

First Name:	Middle:	Last:	
Identifier (not required) or Medical Record #		Account#	
Insurance Provider:		Covered by insurance: yes / no	
Primary:		Secondary:	
Nickname:	Birthdate:	Education level:	
Marital Status:	Occupation:	Race:	Sex: M / F
Social Security #:			
Primary Physician:			
Street Address:			
City:	State:	Zip:	
Home Phone #		Work Phone #	
E-Mail Address:			
Rehabilitation Program (Hospital Name):			
Referring Physician:			
Primary Diagnosis: <input type="checkbox"/> PTCA <input type="checkbox"/> Valve Repair <input type="checkbox"/> Transplant <input type="checkbox"/> CHF <input type="checkbox"/> Atherectomy <input type="checkbox"/> Other _____ <input type="checkbox"/> MI <input type="checkbox"/> CABG <input type="checkbox"/> Stable Angina <input type="checkbox"/> Stent			
Secondary Diagnosis:			
Number of Exercise (Phase 2) sessions completed:			
Involved in a maintenance (Phase 3 or 4) program: No longer involved with program <input type="checkbox"/> Did not finish all sessions of program <input type="checkbox"/>			
Risk Stratification: High Medium Low Return to Pre-Rehabilitation Employment: Yes <input type="checkbox"/> No <input type="checkbox"/> Not employed <input type="checkbox"/> Retired <input type="checkbox"/> Smoking: Non-Smoker <input type="checkbox"/> Smoker <input type="checkbox"/> Depression: Received Prior Counseling <input type="checkbox"/> Referred on for Counseling <input type="checkbox"/> Refused Counseling <input type="checkbox"/>			
Hemoglobin A1c: _____ <input type="checkbox"/> Beta-blocker(s) <input type="checkbox"/> Anticoagulant(s) <input type="checkbox"/> Estrogen <input type="checkbox"/> Anitplatelet(s) <input type="checkbox"/> ACE Inhibitor(s) <input type="checkbox"/> Lipid Lowering Drugs			
Date Evaluations Completed: <input type="checkbox"/> Pre <input type="checkbox"/> Post <input type="checkbox"/> 6 mo. <input type="checkbox"/> 1 yr. <input type="checkbox"/> 2 yr. <input type="checkbox"/> 3 yrs. <input type="checkbox"/> 4 yrs. <input type="checkbox"/> 5 yrs.			

PULMONARY PATIENT PROFILE

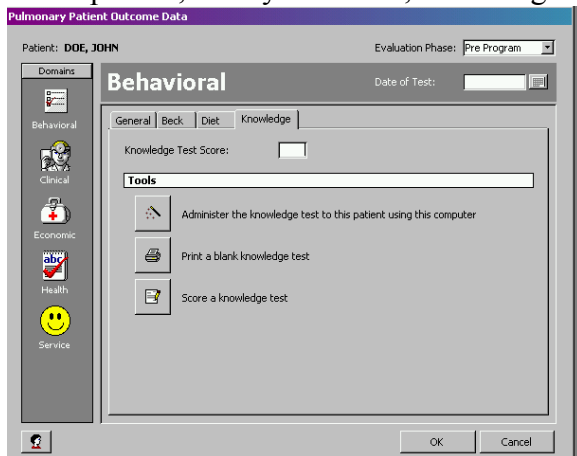
First Name:	Middle:	Last:
Identifier (not required) or Medical Record #		Account#
Insurance Provider:		Covered by insurance: yes / no
Primary:		Secondary:
Nickname:	Birthdate:	Education level:
Marital Status:	Occupation:	Race: Sex: M / F
Social Security #:		
Primary Physician:		
Street Address:		
City:	State:	Zip:
Home Phone # :		Work Phone #:
E-Mail Address:		
Rehabilitation Program (Hospital Name):		
Referring Physician:		
Primary Diagnosis: <input type="checkbox"/> ARDS <input type="checkbox"/> Asthma <input type="checkbox"/> Bronchiectasis <input type="checkbox"/> Pulmonary Fibrosis <input type="checkbox"/> COPD <input type="checkbox"/> Emphysema <input type="checkbox"/> Chronic Bronchitis <input type="checkbox"/> Other _____ <input type="checkbox"/> Interstitial Lung Disease		
Secondary Diagnosis:		
Number of Exercise (Phase 2) sessions completed:		
Involved in a maintenance (Phase 3 or 4) program:		
No longer involved with program <input type="checkbox"/> Did not finish all sessions of program <input type="checkbox"/>		
Risk Stratification: High Medium Low N/A Return to Pre-Rehabilitation Employment: Yes <input type="checkbox"/> No <input type="checkbox"/> Not employed <input type="checkbox"/> Retired <input type="checkbox"/>		
Smoking: Non-Smoker <input type="checkbox"/> Smoker <input type="checkbox"/>		
Depression: Received Prior Counseling <input type="checkbox"/> Referred on for Counseling <input type="checkbox"/> Refused Counseling <input type="checkbox"/>		
Date Evaluations Completed: <input type="checkbox"/> 2 yr. <input type="checkbox"/> 3 yrs. <input type="checkbox"/> 4 yrs. <input type="checkbox"/> 5 yrs. <input type="checkbox"/> Pre <input type="checkbox"/> Post <input type="checkbox"/> 6 mo. <input type="checkbox"/> 1 yr.		

SECTION II: OUTCOME TOOLS

CHAPTER 4: PATIENT KNOWLEDGE TESTS

Administration of the Patient Knowledge Tests

1. The Pulmonary and Cardiac knowledge tests (pages 29 and 39) should be administered after the completion of a health status survey. It should not be sent home with the patient for completion. Answers to the test should be placed on the Knowledge Test Answer Sheet (pages 37 and 46).
2. Spanish versions of the patient knowledge test can be found in Appendix 2 on beginning on page 94.
3. The patient knowledge tests can be taken and scored using the Orion Outcomes.
4. Patients are not required to fill out the knowledge test. If the patient refuses, explain to them that the test is voluntary, but it will provide helpful information regarding the quality of the education program provided by your rehabilitation program. Do not force the patient to fill out the questionnaire.
5. The knowledge test should be filled out by the rehabilitation patient only. They may not receive help from spouses, family members, or other guests. If the patient does not speak English, a translator may



6. be used.
7. If the patient is unable to read, the knowledge test may be given by reading the test to the patient and having them answer orally.
8. If the patient does not understand a particular item, the question may be read to them verbatim, but not rephrased.
9. If a patient asks for an interpretation of a particular question, do not try to explain what the question means. Ask the patient to answer the question based upon what they think it means.
10. **When the patient returns the knowledge test, carefully check to see that the test has been completed. If it is not, ask the patient why the test is incomplete and encourage them to answer the remaining questions.**
11. Inform the patient that they will be asked to fill out the same test at the end of the program. Explain that this will give a better picture of the patient's learning over the course of time.
12. Score the test using the key provided (pages 38 and 47). Unanswered questions are counted as wrong. Record the number of correct answers on the outcome data sheet.

* Test can be administered online.

Cardiac Rehabilitation Patient Knowledge Test

Name _____ Date _____

DIRECTIONS: Please answer the following questions. Write the letter of the best answer on the sheet provided. There are no grades. Your answers will help you gain the most from a cardiac rehabilitation program.

1. Coronary artery disease is a disease in which:

- a. The coronary arteries die and are unable to supply the heart with blood and oxygen.
- b. The coronary arteries, which supply the heart muscle with blood and oxygen, become narrowed as a result of atherosclerotic plaque buildup.
- c. The heart muscle is unable to remove adequate amounts of oxygen from the blood flowing through the heart's chambers.
- d. All of the above.

2. Coronary artery disease results in:

- a. An inadequate supply of carbon dioxide to the heart muscle.
- b. An inadequate amount of carbohydrates to the heart muscle.
- c. An inadequate supply of oxygen to the valves of the heart.
- d. An inadequate supply of oxygen to the heart muscle.

3. A heart attack generally occurs when the heart muscle is deprived of an adequate oxygen supply for longer than:

- a. 24 hours.
- b. 1 hour.
- c. 30 minutes.
- d. 6 hours

4. Fatal heart rhythm disturbances may occur if the heart muscle is deprived of an adequate oxygen supply for:

- a. Even a few minutes.
- b. More than 20 minutes.
- c. More than 30 minutes.
- d. The heart does not need oxygen.

5. During exercise the heart muscle's oxygen requirements:

- a. Remain the same as always.
- b. Decrease in direct proportion to the intensity of effort.
- c. Increase in direct proportion to the intensity of effort.
- d. None of the above.

6. After a heart attack, the damaged area of heart muscle:

- a. Heals by the process of scar tissue formation and never regains its elastic function again.
- b. Heals by the process of blood-clot formation and is soon capable of functioning normally.
- c. Heals by the process of blood-clot formation and never regains its function again.
- d. Heals by the process of osmosis.

7. How long does the process by which the heart muscle heals after a heart attack usually take before it is completed?

- a. 1 to 3 weeks.
- b. 6 to 8 weeks.
- c. 16 to 18 weeks.
- d. 24 to 48 weeks.

8. If you are participating in an exercise program and there is a change in your condition, another heart attack or major cardiac procedure, new symptoms, or a change in your medications you must:

- a. Continue with your program as usual.
- b. Take it easy for a few weeks and then continue with your program where you left off.
- c. Under no circumstances undertake another workout until you have consulted your doctor.
- d. Ask a friend to advise you on your condition.

9. Smoking increases the risk of heart disease because:

- a. The nicotine in inhaled smoke causes blood vessels to decrease in size.
- b. The smoke from cigarettes slows the heart rate.
- c. Cigarette smoking has no effect on your heart, only your lungs.
- d. Cigarettes are less harmful after your first heart attack.

10. During exercise, you should never exceed:

- a. 60% of your symptom-limited heart rate.
- b. 85% of your symptom-limited heart rate.
- c. 100% of your symptom-limited heart rate.
- d. Your symptom-limited heart rate.

11. Which of the following risk factors can you change?

- a. Family history, sex.
- b. Age, national origin.
- c. Cholesterol level, smoking cigarettes.
- d. None of the above.

12. For how long should you count your pulse when calculating your heart rate during exercise?

- a. 30 seconds.
- b. 20 seconds.
- c. 10 seconds.
- d. 60 seconds.

13. If you experience mild chest discomfort during exercise, you should:

- a. Slow down immediately and stop if it does not subside within 2 to 3 minutes.
- b. Continue exercising at the same intensity and slow down only if the discomfort worsens.
- c. Slow down immediately and stop if it does not subside within 10 to 15 minutes.
- d. Keep exercising and work through the symptoms.

14. If you are exercising without supervision and chest discomfort persists for more than 2 to 3 minutes after stopping exercise, you should:

- a. Lie down until the discomfort subsides.
- b. Continue with your workout.
- c. Take a nitroglycerin tablet.
- d. Call 911.

15. If chest discomfort is not relieved by 3 nitroglycerin tablets, taken within 5 minutes apart, you should:

- a. Lie down until the discomfort subsides.
- b. Take another nitroglycerin tablet and wait another 5 minutes to see what happens.
- c. Dial 911 or contact the emergency medical system immediately.
- d. Wait until the morning and see how you feel.

16. The majority of exercise-related cardiac complications occur:

- a. During the middle of a workout.
- b. The day after a workout.
- c. Either at the beginning or at the end of a workout.
- d. Before the workout begins.

17. An adequate warm-up is of vital importance to persons with coronary artery disease because it:

- a. Increases their body temperature and reduces their risk of developing infection.
- b. Makes their workout last longer and therefore increases their energy expenditure.
- c. Provides their circulation sufficient time to adjust to the increased oxygen requirements of the heart muscle.
- d. Increases the chances of having a heart attack.

18. What is the best way for persons with coronary artery disease to cool down after exercise?

- a. Take a cold shower.
- b. Stop exercising and lay flat on their back.
- c. Gradually slow down in order to allow their heart rate to return to near resting values.
- d. Sit in a chair and watch TV.

19. To avoid dehydration when working out on hot and humid days, you should:

- a. Drink a cup of water every 5 minutes during exercise.
- b. Drink a cup of water every 20 minutes during exercise.
- c. Drink a cup of water every 60 minutes during exercise.
- d. Drink a cup of water every day when you exercise.

20. Four of the most important steps to prevent our body temperature from rising excessively during outdoor warm-weather workouts are:

- a. Take a cold shower before exercise; acclimatize adequately; drink water during exercise; wear a cap during exercise.
- b. Limit outdoor exercise on very hot days; acclimatize adequately; drink water during exercise; dress appropriately.
- c. Limit outdoor exercise on very hot days; acclimatize adequately; drink water during exercise; ask your doctor to prescribe a beta-blocker for you.
- d. Do not exercise.

21. Exercising while you have the flu is dangerous and you should therefore:

- a. Wait until your temperature has been normal for at least 24 hours and then return to your usual level of activity gradually over the course of a week or two.
- b. Wait until your temperature has been normal for at least 24 hours and then return to your usual level of activity gradually over the course of a day or two.
- c. Continue exercising, but at a lower level of intensity.
- d. The flu is minor compared to a heart attack, so keep exercising.

22. A key factor for cold-weather workouts is to:

- a. Wear thick clothing.
- b. Wear a good pair of shoes.
- c. Wear multiple layers of clothing.
- d. You cannot exercise in the cold.

23. To reduce their risk of being exposed to high concentrations of carbon monoxide, persons with coronary artery disease should:

- a. Exercise only late in the afternoon.
- b. Avoid working out along heavily traveled roadways at rush hour and try to stay at least 22 yards (20 meters) away from exhaust fumes.
- c. Avoid working out along heavily traveled roadways at rush hour and try to stay at least 5.5 yards (5 meters) away from exhaust fumes.
- d. Exercise indoors only.

24. When exercising at higher than normal altitudes, you should:

- a. Reduce the pace of your workout and take more frequent pulse counts.
- b. Reduce the pace of your workout and take less frequent pulse counts.
- c. Increase the pace of your workout and take more frequent pulse counts.
- d. Increase the pace of your workout and take less frequent pulse counts.

25. In order to get the best health-related benefits from exercise training with the least amount of risk, you should:

- a. Make use of high-intensity anaerobic exercise such as sprinting.
- b. Make use of moderate-intensity aerobic exercise such as brisk walking and jogging.
- c. Both a and b.
- d. None of the above.

26. Once you have been in a medically supervised cardiac rehabilitation program for more than 12 weeks and are cleared for unsupervised exercise, it is best to:

- a. Continue exercising under the direction of your physician at home or in a rehabilitation facility.
- b. Continue exercising at a local health club because you no longer require direction from your physician and other cardiac rehabilitation health professionals.
- c. Continue exercising at home because you no longer require direction from your physician and other cardiac rehabilitation health professional.
- d. Stop exercising because you are fully recovered.

27. Persons with coronary artery disease should generally begin on a serious strength-training program only if they:

- a. Have been regular participants in a cardiac rehabilitation program for at least 12 weeks.
- b. Have an exercise capacity of at least 4 METs.
- c. Are not receiving therapy with beta-blockers.
- d. Anyone can lift weights without restriction.

28. Which of the following activities are most suitable for persons with coronary artery disease?

- a. Basketball, racquetball and water-skiing..
- b. Weight lifting, push-ups and sprinting.
- c. Walking, swimming and cycling.
- d. All of the above.

29. If you have chest pain while driving your car:

- a. Drive to the nearest hospital.
- b. Drive home.
- c. Stop and lie down.
- d. Stop, take a nitroglycerin tablet, signal for help.

30. Sexual relations for the heart attack patient:

- a. Are forbidden.
- b. Are O.K., after released by your physician.
- c. Are fine with your partner's permission.
- d. Are not necessary at your age.

31. High blood pressure sometimes can be lowered by eating foods:

- a. Low in fats and sodium.
- b. High in cholesterol.
- c. High in carbohydrates.
- d. High in vitamin D.

32. If you notice any reaction such as a rash, muscle cramps, or nausea/vomiting lasting more than one day that you feel may be from your medications, you should:

- a. Stops taking your medications until the next time you see your physician.
- b. Decrease the dose to see if that helps.
- c. Buy an over-the-counter medicine to help you feel better.
- d. Notify your physician before making any changes in your medications.

33. Which statement is true of nitroglycerin tablets:

- a. Nitroglycerin should be stored in tightly sealed light-resistant glass or metal bottle, away from temperature extremes, replaced 6-12 months after opening.
- b. Nitroglycerin can be wrapped in Kleenex in a purse or pocket, no need to replace old tablets.
- c. Nitroglycerin should be kept in the refrigerator where they will not melt, or need to replace.
- d. Nitroglycerin can be placed in a pill container with your other pills, replace after one year.

34. Angina pain can be felt in the:

- a. Back.
- b. Jaw.
- c. Chest.
- d. All of the above.

35. Of the following foods, which groups have the highest salt content?

- a. Fresh fruits and vegetables.
- b. Lunchmeats, processed cheeses, and canned soups.
- c. Mild, roast beef sandwich.
- d. Tossed salad with vinegar and oil dressing.

36. To lower this blood fat, you need to avoid sugary foods and maintain your ideal weight. This blood fat is:

- a. Hemoglobin.
- b. Albumin.
- c. Triglycerides.
- d. Creatinine.

37. Which one of the following has the highest source of cholesterol and should be avoided with a heart condition?

- a. Breads and pasta.
- b. Vegetables and fruits
- c. Egg yolks, bacon, and sausage.
- d. Angel food cake.

38. If you have heart disease and mild congestive heart failure you should not:

- a. Exercise outside in hot humid weather.
- b. Exercise outside if the temperature is between 40-70 degrees.
- c. Exercise when the humidity is less than 65 percent.
- d. Exercise in an air-conditioned room.

39. Which of the following are the signs of over-exertion:

- a. Extreme shortness of breath.
- b. Feeling dizzy
- c. Excessive fatigue.
- d. All of the above.

40. When building up endurance in a walking program, how fast should you increase the distance you walk?

- a. Walk with a friend and change distance as the friend does.
- b. Do not try to increase the distance, just increase the speed.
- c. Increase the distance very gradually each week.
- d. Double the distance walked each successive week.

Cardiac Rehabilitation Knowledge Test Answer Sheet

Date _____ Patient Name _____ Score _____
(Number Correct)

#	a	b	c	d	#	a	b	c	d
1.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	21.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	22.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	23.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	24.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	25.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	26.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	27.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	28.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	29.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	30.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	31.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	32.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	33.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	34.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	35.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	36.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	37.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	38.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	39.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	40.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Cardiac Rehabilitation Knowledge Test - Answers

Δ Denotes the correct answer

#	a	b	c	d	#	a	b	c	d
1.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	21.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	22.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
3.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	23.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
4.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	24.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	25.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
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7.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	27.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	28.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
9.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	29.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
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11.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	31.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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20.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	40.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Pulmonary Rehabilitation Knowledge Test

Name _____ Date _____

DIRECTIONS: Please answer the following questions. Write the letter of the best answer on the sheet provided. There are no grades. Your answers will help you gain the most from a pulmonary rehabilitation program.

1. Should you use an inhaled bronchodilator before exercising?

- a. No, because it will make you more shaky.
- b. No, because it won't make any difference.
- c. Yes, it will make you feel stronger.
- d. Yes, it will help prevent you from getting short of breath.

2. When building up endurance in a walking program, how fast should you increase the distance you walk?

- a. Walk with a friend and change distance as the friend does.
- b. Don't try to increase the distance, just increase the speed.
- c. Increase the distance very gradually each week.
- d. Double the distance walked each successive week.

3. The physician orders an arterial blood gas test. What information could this test provide?

- a. Your oxygen level is too low.
- b. Your fluid level is too high.
- c. You have an infection.
- d. You have lung disease.

4. Which of the following symptoms might indicate you are feeling anxious?

- a. Rhythmic breathing.
- b. Trouble sleeping.
- c. Slow pulse.
- d. Dry skin.

5. When planning sexual activity, it is often helpful to:

- a. Avoid discussing sexual feelings.
- b. Use a bronchodilator beforehand.
- c. Take a tranquilizer.
- d. Wait for your partner to begin.

6. Which of the following **best** illustrates denial?

- a. "I am responsible for my illness."
- b. "My smoking contributed to my illness."
- c. "It's just my bad luck to have this disease."
- d. "My poor health habits make my disease worse."

7. If eating causes you to be short of breath, what can you do?

- a. Eat smaller meals more frequently.
- b. Chew your food quickly.
- c. Remove your oxygen while eating.
- d. Drink two glasses of fluid during each meal.

8. What is the **best** way to keep mucus thin?

- a. Take a steam bath daily.
- b. Drink 8-10 glasses of fluid daily.
- c. Sniff saline water up the nostrils.
- d. Take medication to thin secretions.

9. Which of the following is true of support groups for lung disease patients?

- a. They are available by prescription only.
- b. They are provided only for the severely ill patient.
- c. They are available only in big cities.
- d. They can be found by checking the telephone directory.

10. What is the one thing that the group of diseases called "COPD" has in common?

- a. Difficulty in expelling air from the lungs.
- b. Increased production of sputum.
- c. Inability to get air into the lungs.
- d. Necessity for using supplemental oxygen.

11. Which of the following is a common symptom of chronic bronchitis?

- a. Decreased sinus drainage.
- b. Increased sputum production.
- c. Wheezing on breathing out.
- d. Shortness of breath at rest.

12. What is the purpose of pursed lip breathing?

- a. To increase amount of air inhaled through the mouth.
- b. To keep smaller airways open during exhalation
- c. To increase the rate of breathing.
- d. To hold air in the air sacs

13. What is the purpose of chest clapping during postural drainage?

- a. To increase circulation
- b. To loosen mucus.
- c. To decrease breathing rate.
- d. To inhibit gas exchange.

14. In which position can a controlled breathing pattern be done?

- a. Lying down only.
- b. Lying down or sitting.
- c. Lying down, sitting or standing.
- d. Lying down, sitting, standing or walking.

15. Why is diaphragmatic breathing preferred over chest muscle breathing?

- a. It uses less energy.
- b. It is good for digestion.
- c. Exercises the stomach muscle.
- d. It requires less concentration.

16. Which breathing rhythm is the most recommended?

- a. Inhale and exhale for equal amounts of time.
- b. Inhale twice as long as you exhale.
- c. Exhale twice as long as you inhale.
- d. Whatever rhythm is natural for you.

17. Which of the following is the best reason that a person with lung disease should not prescribe oxygen for him or herself?

- a. Oxygen is a prescribed drug and it would have to be obtained illegally.
- b. Oxygen acts as a medicine and requires specific instructions.
- c. High levels of oxygen inhalation destroy red blood cells.
- d. The work of the heart could be increased with increased oxygen use.

18. Which grooming technique is the best for a person with lung disease?

- a. Use aerosol hair spray and deodorant regularly.
- b. Sit down and shave or put on makeup.
- c. Wash hair in the sink.
- d. Stand while using razor or brush.

19. Joe occasionally becomes short of breath when taking a shower. What could he do to prevent this?

- a. Use hot water so the steam could open his airway.
- b. Hurry to finish the shower as quickly as possible.
- c. Have someone else wash his back.
- d. Put a stool in the shower so he can sit down.

20. Which is the best example of someone practicing relaxation?

- a. Imagining a quiet scene.
- b. Watching TV.
- c. Sleeping.
- d. Playing Golf.

21. Which of the following is the most common physical reaction to tension?

- a. A decrease in the blood pressure.
- b. A decrease in the amount of oxygen needed.
- c. An increase in muscle relaxation.
- d. An increase in respiratory rate.

22. Which of the following is the best technique to use when getting dressed?

- a. Move rapidly to finish in a short period of time.
- b. Sit down to get dressed
- c. Stand while getting dressed.
- d. Dress upper body first.

23. Reasonable physical activity tends to have which of the following effects?

- a. Decrease your ability to exercise.
- b. Increase your personal independence.
- c. Increase your shortness of breath.
- d. Decrease your muscle tone.

24. In which part of the lungs does oxygen and carbon dioxide exchange take place?

- a. Alveoli.
- b. Bronchioles.
- c. Pleural cavity.
- d. Trachea

25. Which of the following statements best describes the diaphragm?

- a. Small muscles between the ribs that help the ribs expand.
- b. Medium sized sac that surrounds and protects the heart.
- c. Large membrane that completely surrounds each lung.
- d. Large dome-shaped muscle that forms the floor of the chest cavity.

26. What tiny hair-like fibers sweep mucus up to the throat?

- a. Alveoli.
- b. Cilia.
- c. Bronchioles.
- d. Cartilage.

27. Swollen airway linings, an increase in mucus, and a chronic cough are the usual symptoms of which disease?

- a. Asthma.
- b. Bronchitis.
- c. Fibrosis.
- d. Emphysema.

28. Which of the following is one of the benefits of steroid medicines to a person with lung disease?

- a. Steroids thin mucus.
- b. Steroids decrease airway swelling.
- c. Steroids fight infection.
- d. Steroids increase airway spasms.

29. In which of the following situations are bronchodilators most effective?

- a. At the height of a wheezing attack.
- b. After doing heavy activity.
- c. Immediately following postural drainage.
- d. On a routine daily schedule.

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30. Which of the following warning signs indicate a lack of oxygen in the blood?

- a. Irritability.
- b. Hunger.
- c. Wakefulness.
- d. Indigestion.

31. Which of the following is most likely to contribute to sexual problems?

- a. Using supplemental oxygen during sexual activity.
- b. Planning ahead for sexual relations.
- c. Communicating feelings with your partner.
- d. Fearing you will fail.

32. Which of the following is most important to ensure the success of a rehabilitation program?

- a. The cost of the program.
- b. The patient's motivation.
- c. The doctor's recommendation.
- d. The quality of the teaching.

33. What should you do if your medicines prevent you from falling asleep at night?

- a. Do not take your last dose.
- b. Avoid scheduling your medicines at bedtime.
- c. Take your medicines if you wake up during the night.
- d. Take all your medicines in the morning.

34. What part of the lungs is damaged by emphysema?

- a. Air sacs.
- b. Pleura.
- c. Capillaries.
- d. Trachea.

35. It is recommended that you exercise during which breathing phase?

- a. Inhalation (breathing in).
- b. Exhalation (breathing out).
- c. Whichever you prefer.
- d. Part inhaling, part exhaling.

36. What is the **most** effective way to cough?

- a. Avoid drinking water prior to coughing.
- b. Exhale through the mouth prior to coughing.
- c. Avoid a large cough by using several small coughs.
- d. Cough only in the morning.

37. When having a bowel movement, what should you do to prevent shortness of breath?

- a. Hold your breath while pushing.
- b. Breathe out while pushing gently.
- c. Take frequent shallow breaths.
- d. Inhale through the mouth.

38. Due to his lung disease, Bob can no longer handle the physical labor of his present job. What is the **most** likely symptom Bob will have during an interview for a new job?

- a. His airways may contract and narrow.
- b. His blood pressure may lower.
- c. His digestive ability may increase.
- d. His breathing rate may slow down.

39. What is visual imagery?

- a. Tightening and relaxing all muscles in the body.
- b. Thinking of a word that is relaxing.
- c. Dreaming of a scene that is relaxing.
- d. Concentrating on a certain part of the body.

40. If you become short of breath and begin to panic, what should you do **first**?

- a. Lie down and relax.
- b. Run for help.
- c. Begin pursed lip breathing.
- d. Call you doctor for medicine.

Pulmonary Rehabilitation Knowledge Test Answer Sheet

Date _____ Patient Name _____ Score _____
(Number Correct)

#	a	b	c	d	#	a	b	c	d
1.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	21.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	22.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	23.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	24.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	25.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	26.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	27.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	28.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	29.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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11.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	31.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	32.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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16.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	36.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	37.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	38.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	39.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	40.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Pulmonary Rehabilitation Knowledge Test - Answers

Δ Denotes the correct answer

#	a	b	c	d	#	a	b	c	d
1.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	21.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
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CHAPTER 5: SIX-MINUTE DISTANCE WALK

Selection of Walking Area for the Six Minute Walk

Note: The Six Minute Distance Walk is a valid and reliable test when the subject walks in a hall or around a track. This test can not, at this time, be administered on a treadmill.

Administration of the Six-minute Cardiac Distance Walk

The 6MDW should be administered prior to or at the beginning of the first exercise session of the rehabilitation program and at the last exercise session of the program. Walks should take place at about the same time of day, at least two hours following a meal and should

be the first activity of the exercise session. A quiet indoor hallway that is at least 100 feet in length would make a suitable walking location.

Equipment:

Outcome Data Sheets (page 84), Rolling distance marker, stopwatch, heart monitor, Borg Scale (page 52), and a chair.

Exclusion Criteria:

Patients with musculoskeletal problems that preclude walking such as intermittent claudication, paralysis, and pain.

Protocol:

1. Measure and record the patient's height and weight. Prior to the walk, have the patient rest in a sitting position for 5 minutes. After this rest period, blood pressure and heart rate, are measured for all patients. Record all the data on the outcome data sheet.
2. The following instructions will be given to the patients: "The purpose of this test is to find out how far you can walk in six minutes. You will start from this point (indicate marker at one end of the course) and follow the hallway to the marker at the end, then turn around and walk back. When you arrive back at the starting point, you will go back and forth again. You will go back and forth as many times as you can in the six-minute period. If you need to, you may stop and rest. Just remain where you are until you can go on again. However, the most important thing about the test is that you cover as much ground as you possibly can during the six minutes. I will tell you the time, and I will let you know when the six minutes are up. When I say **stop** please stand right where you are."
3. During the walks, the following words of encouragement will be provided at 30-second intervals: "You are doing Well," "Keep up the good work," "Good Job," "You are doing fine."
4. The monitor will walk behind the patient so as not to influence the patient's pace and will attempt to face the subject only when offering encouragement.
5. Patients are told when 2, 4, and 6 minutes (stop) have elapsed.
6. Immediately following completion of the walking test, have the patient sit down and evaluate for heart rate, blood pressure, rating of perceived exertion (Borg Scale) and total distance walked in feet. Record the results on the outcome data sheet.
7. After the patient has rested for exactly five minutes, measure and record their heart rate and blood pressure on the outcome data sheet.

Administration of the Six-minute Pulmonary Distance Walk

The 6MDW should be administered prior to or at the beginning of the first exercise session of the rehabilitation program and at the last exercise session of the program. Walks should take place at about the same time of day, at least two hours following a meal and should be the first activity of the exercise session. A quiet indoor hallway that is at least 100 feet in length would make a suitable walking location.

Equipment:

Outcome Data Sheets (page 84), rolling distance marker, stopwatch, oxygen saturation monitor, Dyspnea Scale (page 52), heart monitor (optional) and a chair.

Exclusion Criteria:

Patients with musculoskeletal problems that preclude walking such as intermittent claudication, paralysis, and pain.

Protocol:

1. Measure and record the patient's height and weight. Prior to the walk, have the patient rest in a sitting position for 5 minutes. After this rest period, blood pressure, heart rate, SaO₂ and rating of perceived dyspnea are measured for all patients. Record all the data on the outcome data sheet.
2. If resting SaO₂ is below 85% without supplemental oxygen or below 90% with oxygen do not perform the test. Take appropriate action and reschedule testing for another day. Patients on supplemental oxygen will use their oxygen at the prescribed flow rate for exercise.
3. The following instructions will be given to the patients: "The purpose of this test is to find out how far you can walk in six minutes. You will start from this point (indicate marker at one end of the course) and follow the hallway to the marker at the end, then turn around and walk back. When you arrive back at the starting point, you will go back and forth again. You will go back and forth as many times as you can in the six-minute period. If you need to, you may stop and rest. Just remain where you are until you can go on again. However, the most important thing about the test is that you cover as much ground as you possibly can during the six minutes. I will tell you the time, and I will let you know when the six minutes are up. When I say **stop** please stand right where you are."
4. During the walks, the following words of encouragement will be provided at 30-second intervals: "You are doing Well," "Keep up the good work," "Good Job," "You are doing fine."
5. The monitor will walk behind the patient so as not to influence the patient's pace and will attempt to face the subject only when offering encouragement.
6. Patients are told when 2, 4, and 6 minutes (stop) have elapsed.
7. Patients should have their oxygen saturation monitored continuously during the test. If saturations fall below 80%, stop walking and discontinue the test. Record the lowest oxygen saturation observed on the outcome data sheet.
8. Immediately following completion of the walking test, have the patient sit down and evaluate for SaO₂, heart rate, blood pressure, rating of perceived dyspnea, and total distance walked in feet. Record the results on the outcome data sheet.
9. After the patient has rested for exactly five minutes, measure and record their heart rate, blood pressure, oxygen saturation and dyspnea level on the outcome data sheet.

Borg Scale - Rating of Perceived Exertion

(RPE for Cardiac Patients)	
6	
7	VERY, VERY, LIGHT
8	
9	VERY LIGHT
10	
11	FAIRLY LIGHT
12	
13	SOMEWHAT HARD
14	
15	HARD
16	
17	VERY HARD
18	
19	VERY VERY HARD
20	

Ratings of Perceived Dyspnea

(RPD for Pulmonary Patients)	
0	No Shortness of Breath
1	Mild - noticeable to patient not to observer.
2	Some Difficulty - noticeable to observer.
3	Moderate difficulty - but patient can continue.
4	Severe difficulty - patient cannot continue.

CHAPTER 6: DIET HABIT SURVEY

Name: _____ Date: _____

THE DIET HABIT SURVEY* (A self-scoring survey to determine your diet composition)

This survey will help you evaluate your current eating habits and compare them with the goals of lower fat, lower cholesterol, and higher carbohydrate eating styles. By taking this survey you will get ideas of what you need to do in order to achieve this way of eating. And by taking this survey at various times later on, you will be able to gauge your progress. Do not expect to change all of your eating habits overnight. Slow, steady change is the path to permanent change.

DIRECTIONS

For each question, circle the numbers to the left of the choices that best describe your eating habits **during the past month**.

If you only circled one choice put that number in the space marked **score**. If you circled more than one choice, put the **AVERAGE** of the circled choices in the space marked **score**.

For example, with respect to question 5, if you circled 1 bacon, sausage, and also circled 5 Garden Sausage, your score is: $1+5=6$ divided by $2=3$. Use the appropriate score sheet (either Women/Children or Men/Teens) at the end of the questionnaire to compare your scores with the appropriate goal scores and determine your diet composition. List three things you would try that would move your scores closer to your desired goals.

The screenshot shows a software window titled "Pulmonary Patient Outcome Data". At the top, it displays "Patient: DOE, JOHN" and "Evaluation Phase: Pre Program". Below this, there's a "Domains" sidebar on the left with icons for Behavioral, Clinical, Economic, Health, and Service. The main area is titled "Behavioral" and has sub-tabs for "General", "Beck", "Diet", and "Knowledge". The "Diet" sub-tab is selected, and it contains a "Diet Habit Survey:" label followed by an empty input box. At the bottom right, there are "OK" and "Cancel" buttons.

* Developed by the Lipid-Atherosclerosis Nutrition Staff, Section of Clinical Nutrition and Lipid Metabolism, Department of Medicine, Oregon Health Sciences University

MEAT, FISH AND POULTRY

Consider your eating habits during the last month. For each question, circle as many numbers as apply and average numbers.

1.) Which type of ground meat do you usually eat?

- 1. Regular hamburger (30% fat)
- 2. Lean ground beef (25% fat)
- 3. Extra lean/ground chuck (20% fat)
- 4. Super lean/ground round (15% fat)
- 5. Ground sirloin (10% fat), ground turkey breast, ground chicken breast
- 6. Eat no ground meat

Average the marked numbers

Score _____

2.) Which best describes your typical lunch? “Lunch meat” means ham, bologna, salami, pastrami, etc.

- 1. Cheeseburger, pizza, typical cheeses, egg dishes (egg salad, quiche, frittata, etc.)
- 2. Sandwich (lunch meat, hamburger, etc.) meat or chicken entrée (plain or fried)
- 3. Sandwich (tuna, peanut butter, chicken or turkey lunch meat/light mayo, fish), hot dog (reg. Or turkey), vegetarian dishes
- 4. Tuna sandwich/mayo 1 gm fat or less/tbsp., Gardenburger, entrée (fish (not fried), small bits of chicken or meat)
- 5. Salad (low-cal dressing), low-fat vegetarian dishes, low-fat yogurt, hot do (0-2 gm fat), sandwich/mayo 1 gm fat or less/tbsp. (thinly sliced deli meats, fat free lunch meat)
- 6. Fat free vegetarian dishes, salad (fat free dressing), Gardendog, Garden Vegan (fat free burger), nonfat yogurt

Average the marked numbers

Score _____

3.) Circle all of the choices that reflect the entrée at your main meal.

- 1. Cheese (Cheddar, Jack, etc.) eggs, organ meats (liver, etc.) pizza, vegetarian dishes once a week or more
- 2. Beef, lamb, pork or ham once a week or more
- 3. Very lean red meat (top round or flank steak), veal, venison or elk once a week or more
- 4. Chicken, turkey, rabbit, crab, lobster or shrimp twice a week or more
- 5. Fish, scallops, oysters, clams, low-fat, vegetarian dishes twice a week or more
- 6. Fat free vegetarian dishes, fat free seafood dishes every day

Average the marked numbers

Score _____

4.) Estimate the number of ounces of meat, cheese, fish and poultry you eat in a typical day. Include all meals and snacks. To guide you in your estimate (a piece the size of a deck of cards=3 oz.)

1 wiener = 1 ½ oz.

4 strips bacon = 1 oz.

1 small burger patty = 3-4 oz.

Meat in most sandwiches = 2-3 oz.

1 slice cheese = 1 oz.

1 chicken thigh = 2.3 oz.

½ chicken breast = 3 oz.

1 average T-bone steak = 8 oz.

1-inch cube cheese = 1 oz.

- 1. Eleven or more ounces a day
- 2. Nine to 10 ounces a day
- 3. Six to 8 ounces a day
- 4. Four to 5 ounces a day
- 5. Up to 1 ounce cheese *or* 3 oz. lean meat, poultry, shrimp, crab, lobster *or* 6 oz. fish, clams, oysters, scallops a day
- 6. Up to 3 ounces shrimp, crab, lobster *or* 6 ounces fish, clams, oysters, scallops a day *or* None

Average the marked numbers

Score _____

5.) Which of these have you eaten in the past month?

- 1. Bacon, sausage
- 2. Canadian bacon, turkey or chicken sausage
- 4. Vegetarian sausage (soy)
- 5. Garden Sausage
- 6. None

Average the marked numbers

Score _____

TOTAL SCORE (MEAT, FISH AND POULTRY) _____

DAIRY PRODUCTS AND EGGS

Consider your eating habits during the last month. For each question, circle as many numbers as apply and average numbers.

6.) Which do you usually use for drinking (don't forget lattes) or cooking?

- 1. Whole milk
- 2. Two percent milk
- 4. One percent milk, buttermilk, nondairy beverages (Edensoy, Rice Dream, etc.)
- 5. Skim (nonfat) milk, light nondairy beverages (Edensoy light, Rice Dream light, etc.) or none

Average the marked numbers

Score _____

7.) Which toppings do you use?

- 1. Sour cream (real or imitation including IMO), whipped cream
- 2. Light sour cream, Cool Whip
- 3. Light Cool Whip, regular cottage cheese, whole milk yogurt
- 4. Low-fat yogurt, Dream Whip, low-fat cottage cheese
- 5. 1% cottage cheese
- 6. Nonfat yogurt, nonfat sour cream, nonfat cottage cheese or none

Average the marked numbers

Score _____

8.) Which frozen desserts are you most likely to eat at least once a month?

- 1. Ice Cream
- 3. Ice milk, most soft ice cream, frozen yogurt (cream added)
- 4. Sherbet, low-fat frozen yogurt
- 5. Nonfat frozen yogurt, sorbets, ices, Popsicles or **none**

Average the marked numbers

Score _____

9.) Which kind of cheese do you use for snacks or sandwiches?

- 1. Cheddar, Swiss, Jack, Havarti, Brie, Feta, Montrachet, cream cheese, cheese slices, cheese spreads
- 2. Part-skim mozzarella, light cream cheese/Neufchatel, Lappi, string cheese, Weight Watchers, light Cheddar, Light Jack (Kraft Light Naturals, Alpine Lace-Lo, Velveeta Light or other part-skim cheeses)
- 4. Jarisburg Lite, low-cholesterol “filled” cheese (Hickory Farms Lyte)
- 5. Light part-skim mozzarella, low-fat ricotta, Light Laughing Cow, Lite-Line
- 6. Fat free cheeses (Cheddar, Jack, ricotta, cream, Healthy Choice, Alpine Lace, etc.) or none

Average the marked numbers

Score _____

10.) Which kind of cheese do you use in cooking (casseroles, vegetables, etc.)?

- 1. Cheddar, Swiss, Jack, Brie, Feta, Montrachet, cream cheese, processed cheese (Velveeta or American)
- 3. Part-skim mozzarella, light cream cheese, Lappi, Weight Watchers
- 4. Jarisberg Lite, low-cholesterol “filled” cheeses (Hickory Farms Lyte)
- 5. Light part-skim mozzarella, low-fat ricotta, Lite-Line
- 6. Fat free cheeses (Cheddar, Jack, ricotta, cream, Healthy Choice, Alpine Lace, etc) or none

Average the marked numbers

Score _____

11.) Check the type and number of “visible” eggs you eat (scrambled, fried, etc.)

- 1. Six or more whole eggs a week
- 2. Three to five whole eggs a week
- 3. One to two whole eggs a week
- 4. One whole egg a week
- 5. Egg white, egg substitute, (Nulaid, Egg Beaters, Scramblers, Second Nature, etc.)
or **none**

Average the marked numbers

Score _____

12.) Check the type of eggs usually used in food prepared at home or bought in grocery stores?

- 1. Whole eggs or mixes containing whole eggs (complete pancake mix, slice-and-bake cookies, etc.)
- 3. Combination of egg white, egg substitute and whole egg
- 5. Egg white, egg substitute or **none**

Average the marked numbers

Score _____

TOTAL SCORE (DAIRY PRODUCTS AND EGGS)_____

FATS AND OILS

Consider your eating habits during the last month. For each question, circle as many numbers as apply and average numbers.

13.) Which kinds of fats are used most often to cook your food (vegetables, meats, etc)?

- 1. Butter, shortening (with animal fat), lard, bacon grease, chicken fat
- 2. Shortening (with vegetable oil)
- 3. Tub or stick margarine (all except canola), vegetable oil (soybean, cottonseed)
- 4. Vegetable oil (safflower, corn, olive), tub or stick margarine (canola)
- 5. Vegetable oil (canola)
- 6. **None** or use nonstick cooking spray

Average the marked numbers

Score _____

14.) How much of these “added” fats do you eat in the typical day: peanut butter, margarine, mayonnaise, or salad dressing (including those made with olive oil)?

Examples of amounts people often use:

On toast: 2 tsp. Margarine

*On sandwiches: 6 tsp. mayonnaise
6-tsp. peanut butter
2-tsp. margarine*

on salads: 12 tsp. Salad dressing

on potatoes: 3 tsp. margarine

on pasta, rice: 3-tsp. margarine or oil

on vegetables: 3-tsp. margarine

on pasta, etc: 6-tsp. pesto

Do not count fat free products

- 1. Ten teaspoons or more
- 2. Eight to 9 teaspoons
- 3. Six to 7 teaspoons
- 4. Four to 5 teaspoons
- 5. Three teaspoons
- 6. **none**

Average the marked numbers

Score _____

15.) How often do you eat potato chips, corn or tortilla chips, fried chicken, fish sticks, French fries, doughnuts, other fried foods, croissants, or Danish pastries?

Do not count fat free products

- 1. Two or more times a day
- 2. Once a day
- 3. Two to 4 times a week
- 4. Once a week
- 5. Less than twice a month
- 6. Never

Average the marked numbers

Score _____

16.) Which best describes the amount of margarine, butter, peanut butter, mayonnaise or cream cheese that you put on breads, muffins, bagels, etc?

Do not count fat free products

- 1. Average (1 teaspoon or more per serving)
- 2. Lightly spread (can see through it)
- 4. "Scrape" (can barely see it)
- 5. **None**

Average the marked numbers

Score _____

17.) Which kind of salad dressings do you use?

- 1. Real mayonnaise
- 2. Miracle Whip, French, Roquefort and blue cheese dressings
- 3. Ranch, vinegar and oil, Russian, Thousand Island and Italian dressings
- 4. Light mayo, Miracle Whip Light, Ranch Dressing (buttermilk and light mayo or Miracle Whip Light)
- 5. Best Food's Low-Fat Mayo (1 gm fat/tbsp.), low-cal salad dressing, Ranch Dressing (buttermilk and low fat yogurt)
- 6. Fat free mayonnaise, fat free Miracle Whip, fat free salad dressings, Ranch Dressing (buttermilk and nonfat yogurt), vinegar, lemon juice or **use no salad dressing**

Average the marked numbers

Score _____

TOTAL SCORE (FATS AND OILS) _____

SWEETS AND SNACKS

Consider your eating habits during the last month. For each question, circle as many numbers as apply and average numbers.

18.) How often do you eat desserts or baked goods (sweet rolls, doughnuts, muffins, scones, cookies, cakes)? Do not count fat free versions

- 1. Once a day
- 2. Five to 6 times a week
- 3. Three to 4 times a week
- 4. Two times a week
- 5. One time a week
- 6. Never

Average the marked numbers

Score _____

19.) Which of the following baked goods have you eaten as a dessert or snack in the last month?

- 1. Croissants, cheesecake, typical cakes including carrot cake with cream cheese frosting
- 2. Pies, cookies, cupcakes, muffins scones
- 4. Low-fat muffins, desserts made using low-fat recipes, low-fat cookies (fig bars, ginger snaps, Snackwell's)
- 5. Fat free desserts including angel food cake, fat free cookies (Snackwell's)
- 6. Fruit or **never eat baked goods listed above**

Average the marked numbers

Score _____

20.) Which of the following snacks have you eaten in the last month?

- 1. Chocolate, frosted doughnut, commercial popcorn, typical homemade popcorn
- 2. Nuts, plain doughnut, potato chips, tortilla chips, Cheetos, party/snack crackers, microwave popcorn, French fries, peanut butter.
- 3.
- 4. Light microwave popcorn, lightly buttered popcorn (1 tsp. Margarine for 3 cups popcorn), low-fat crackers (soda, graham)
- 5. Baked tortilla chips, baked potato chips, pretzels, fat free soda crackers and other fat free crackers
- 6. Fruit, vegetables, or **do not eat snacks**

Average the marked numbers

Score _____

TOTAL SCORE (SWEETS AND SNACKS) _____

GRAINS, BEANS, FRUITS AND VEGETABLES

Consider your eating habits during the last month. For this part of the quiz, give yourself points for the following foods you eat each day or week, as specified for the question.

BEVERAGES

Consider your eating habits for the last month. For each question, circle the number that applies.

26.) Which of the following reflects your habits regarding alcoholic beverages? Avg. of Circled #'s

1 drink = *12 ounces of beer*
 1 ½ ounces whiskey, gin, rum, etc.
 4 ounces wine
 1 ounce liqueur

- 1. One or more drinks a day
- 2. Four to 6 drinks a week
- 3. Three drinks a week
- 4. One to 2 drinks a week
- 5. One to 3 drinks a month
- 6. **Do not drink alcoholic beverages**

Average the marked numbers

Score _____

27.) Which of the following reflects your habits regarding soda pop, sweetened seltzers, sports drinks, fruit punch, etc.?

12 ounce can = 1 ½ cups
16 ounce bottle = 2 cups
32 ounce bottle = 4 cups

Do not count sugar free (diet drinks)

- 1. One or more cups a day or 7 cups a week
- 2. Four to 6 cups a week
- 3. Three cups a week
- 4. One to 2 cups a week
- 5. **None** or less than one cup a week

Average the marked numbers

Score _____

28.) How much coffee do you drink? This includes espressos, lattes, etc.

- 1. Six or more cups a day
- 3. Four to 5 cups a day
- 4. One to 3 cups a day
- 5. **None** or less than one cup a day

Average the marked numbers

Score _____

TOTAL SCORE (BEVERAGES) _____

SALT

Consider your eating habits during the last month. For each question, circle as many numbers as apply and average numbers.

29.) Which type of “salt” do you normally use?

- 1. Regular salt, sea salt, flavoring salts (seasoned salt, garlic salt, onion salt, celery salt, lemon pepper, etc.) regular soy sauce
- 2.
- 3. Combination of regular and Lite Salt
- 4. Lite Salt, lower-sodium soy sauce, reduced-sodium flavoring salts
- 5. **None** or salt substitute (100% potassium chloride)
- 6.

Average the marked numbers

Score _____

30.) How often do you add salt to your food at the table?

- 1. Always
- 2. Frequently
- 4. Occasionally
- 5. Never

Average the marked numbers

Score _____

31.) Which type of salt and how much do you use in cooking potatoes, rice, pasta, vegetables, meat, casseroles and soups.

- 1. Regular salt (typical amount) or eat in restaurants 4 or more times a week
- 2. Regular salt (1/2 typical amount) or Lite Salt (typical amount)
- 4. Lite Salt (1/2 typical amount)
- 5. **None**, salt-free products (Mrs. Dash, etc.) or salt substitute

Average the marked numbers

Score _____

32.) Which type of cereals do you use?

- 1. Typical dry cereals (sweetened or unsweetened) or cereals cooked with regular salt (typical amount)
- 3. Combination of typical dry cereals and salt-free dry cereals (Shredded Wheat, Puffed Wheat, Puffed Rice) or cereals cooked with regular salt (1/2 typical amount) or Lite Salt (typical amount)
- 5. Eat salt-free dry cereals (Shredded Wheat, Puffed Wheat, Puffed Rice, etc.) or cereals cooked without salt **or do not eat cereal**

Average the marked numbers

Score _____

33.) How often do you use typical canned, bottled or packaged foods: salad dressings, salsa, picante sauce, ketchup, cured meats (lunchmeat, ham, etc.), vegetables, soups (remember chicken broth), chili, entrees, beans and sauces?

- 1. More than 15 times a week or eat in restaurants 4 or more times a week
- 2. Ten to 14 times a week
- 3. Six to 9 times a week
- 5. Five times a week or less

Average the marked numbers

Score _____

TOTAL SCORE (SALT) _____

RESTAURANTS AND RECIPES

Consider your eating habits during the last month. For each question, circle the number that applies or check the choices that apply and determine the score.

34.) How often do you eat breakfast at a restaurant or cafeteria?

- 1. More than twice a week
- 2. Once or twice a week
- 3. Once a week if you eat low-fat (unbuttered toast or English muffin, oatmeal)
- 5. Less than once a month
- 6. **Never**

Average the marked numbers

Score _____

35.) How often do you eat lunch at a restaurant or cafeteria or eat “take out?”

- 1. Daily
- 2. Five days a week
- 3. Two to four days a week
- 4. One day a week
- 5. Less than once a month
- 6. **Never**

Average the marked numbers

Score _____

36.) How often do you eat dinner at a restaurant or cafeteria or eat “take out?”

- 1. More than 3 times a week
- 2. Two or 3 times a week
- 3. Once a week
- 4. Once or twice a month
- 5. Less than once a month
- 6. **Never**

Average the marked numbers

Score _____

37.) Check the choices you make when eating in restaurants or cafeterias.

- Select restaurants that offer low-fat choices and order those choices
- Order toast, muffins, cereal, pancakes, waffles for breakfast
- Order soup (not cream), salad or other meatless, cheeseless entrees for lunch
- Order vegetarian pizzas with half the cheese
- Avoid cheese, eggs, bacon on salads and avoid potato and macaroni salads
- Put garbanzo or kidney beans on salad at the salad bar
- Use a very small amount of salad dressing
- Order a fish, shellfish, chicken or lean red meat entrée (but not fried)
- Use no more than 1 pat of margarine at any meal
- Order fruit, sorbet, sherbert, frozen yogurt, or skip desert

SCORE: (0-1 checks = 1; 2-3 checks = 2; 4-5 checks = 3; 6-7 checks = 4; 8-10 checks, or eat out less than once a month = 5)

Score _____

38.) How often do you eat foods made using low-fat recipes or cook low-fat recipes?

- 1. Once a month or less
- 2. One to 2 times a week
- 3. Three to 4 times a week
- 4. Five to 6 times a week
- 5. Every day

Average the marked numbers

Score _____

TOTAL SCORE (RESTAURANTS AND RECIPES) _____

SEAFOOD

Consider your eating habits during the last month. For each question, circle all items that apply and average numbers.

39.) How often do you eat fish? (tuna, snapper, perch, sole, halibut, cod, salmon, shrimp [prawns], crab, lobster, scallops, oysters, sardines, etc).

- 1. Do not eat fish or eat fish less than once a month
- 2. One to three times a month
- 3. Once a week
- 4. Two times a week
- 5. Three or more times a week or **eat vegetarian with no added fat**

Average the marked numbers

Score _____

40.) Which fish (fresh, frozen, or canned) have you eaten in the last month?

- 1. Ate no fish in the last month
- 2. Tuna, clams, scallops, lobster, mussels
- 3. White fish (snapper, perch, cod, sole, halibut, catfish, etc), shrimp (prawns), crab, snow crab (surimi), oysters, squid
- 4. Salmon (pink, silver, or coho), trout, steelhead
- 5. Salmon (Chinook, king, or red), sardines, herring, mackerel or **eat vegetarian with no added fat**

Average the marked numbers

Score _____

TOTAL SCORE (FISH) _____

Scoring the Diet Habit Survey for 2000 Calories

WOMEN AND CHILDREN

Place the score for each category in the appropriate blank space. Circle the scores for each category. Identify the categories that are closer to your goals and those that are further from your goals. The **TOTAL SCORE** will give you an idea of your overall eating style. The nutrients listed below the total scores provide a good estimate of your diet composition. Finally, there is a space for you to list at least three ways you can change eating habits towards your goals.

	Current U.S. Diet 37% fat	30% fat	25% fat	20% fat	10% fat	Your Score
Meat, Fish and Poultry	<13	13-15	16-21	22-29	30	
Dairy Products and Eggs	<22	22-27	28-32	33-37	38	
Fats and Oils	<15	15-18	19-22	23-28	29	
Sweets and Snacks	<11	11	12-13	14-16	17-18	
Grains, Beans, Fruits And Vegetables	<45	45-65	66-83	84-104	105-136	
Beverages	<9	9-11	12	13-16	13-16	
Salt	<14	14-17	18-21	22-25	22-25	
Restaurants and Recipes	<13	13-16	17-19	20-25	26-28	
Seafood	<5	5	6-7	8-10	8-10	
TOTAL	<147	147-190	191-235	236-287	288-330	

These total scores correspond to a diet with the following nutrient composition:

Cholesterol, mg/day	400	<300	<200	<100	<75	
Saturated fat, %calories	13	10	8	5	2	
Cholesterol-Saturated Fat Index/day	49	37	28	16	8	
Fat, % calories	37	30	25	20	10	
Carbohydrate, %calories	48	55	60	65	75	
Protein, % calories	15	15	15	15	15	
Sodium, mg/day	>2875	2875	2300	1725	1725	
Potassium, mg/day	<2535	2535	3900	3900	3900	

< means "less than" > means "more than"

Scoring the Diet Habit Survey for 2800 Calories

MEN AND TEENS

Place the score for each category in the appropriate blank space. Circle the scores for each category. Identify the categories that are closer to your goals and those that are further from your goals. The **TOTAL SCORE** will give you an idea of your overall eating style. The nutrients listed below the total scores provide a good estimate of your diet composition. Finally, there is a space for you to list at least three ways you can change eating habits toward your goals.

	Current U.S. Diet 37% fat	30% fat	25% fat	20% fat	10% fat	Your Score
Meat, Fish and Poultry	<12	12-14	15-20	21-29	30	
Dairy Products and Eggs	<22	22-28	29-32	33-37	38	
Fats and Oils	<14	14-17	18-21	22-28	29	
Sweets and Snacks	<11	11	12-13	14-16	17-18	
Grains, Beans, Fruits And Vegetables	<70	70-96	97-127	128-166	167-195	
Beverages	<9	9-11	12	13-16	13-16	
Salt	<14	14-17	18-21	22-25	22-25	
Restaurants and Recipes	<13	13-16	17-19	20-25	26-28	
Seafood	<5	5	6-7	8-10	8-10	
TOTAL	<170	170-220	221-277	278-349	350-389	

These total scores correspond to a diet with the following nutrient composition:

Cholesterol, mg/day	500	<350	<220	<140	<100	
Saturated fat, %calories	13	10	8	5	2	
Cholesterol-Saturated Fat Index/day	67	49	36	23	10	
Fat, % calories	37	30	25	20	10	
Carbohydrate, %calories	48	55	60	65	75	
Protein, % calories	5	15	15	15	15	
Sodium, mg/day	>4025	4025	3320	2415	2415	
Potassium, mg/day	<3549	3549	5460	5460	5460	

< means "less than" > means "greater than"

Suggestions for changing eating habits toward your goals:

THE DIET HABIT SURVEY

Goal Scores for Individual Questions for 2000 Calories

Women and Children

Question Number	Current U.S Diet 37% fat	Lower fat, Higher Carbohydrate Diet			
		30%fat	25%fat	20%fat	10%fat
1	<3	3	4	5	6
2	<2	2	3	4-5	6
3	<3	3	3-4	4-5	6
4	<3	3	4	5	6
5	<2	2	3	5	6
6	<3	3	4	5	5
7	<4	4	5	5-6	6
8	<3	3	4	4-5	5
9	<2	2	4-5	4-6	6
10	<3	3	3-4	4-6	6
11	<4	4	5	5	5
12	<3	3-5	5	5	5
13	<4	4	4	5-6	6
14	<3	3	4	5	6
15	<3	3	4	5	6
16	<2	2	4	4-5	5
17	<3	3	4	5-6	6
18	<4	4	5	6	6
19	<3	3	4	4-6	5-6
20	<4	4	4	4-5	5-6
21	<10	10-11	12-13	14-16	14-16
22	<5	5-8	9-12	13-18	19-25
23	<3	3-7	8-10	11-15	16-23
24	<24	24-29	30-33	34-37	38-45
25	<3	3-7	8-12	13-18	19-27
26	<3	3	4	4-6	4-6
27	<3	3	4	5	5
28	<3	3	4	4-5	4-5
29	<3	3	4	4-5	4-5
30	<4	4	5	5	5
31	<2	2	4	4-5	4-5
32	<3	3	3	5	5
33	<2	2	3	5	5
34	<2	2	2	3	6
35	<3	3	4	4-5	6
36	<2	2-3	3	4-5	6
37	<3	3	4	5	5
38	<3	3	4	5	5
39	<3	3	4	4-5	4-5
40	<2	2	3	3-5	3-5

< means less than

THE DIET HABIT SURVEY

Goal Scores for Individual Questions for 2000 Calories

Men and Teens

Question Number	Current U.S Diet 37% fat	Lower fat, Higher Carbohydrate Diet			
		30%fat	25%fat	20%fat	10%fat
1	<3	3	4	5	6
2	<2	2	3	4-5	6
3	<3	3	3-4	4-5	6
4	<2	2	3	4	6
5	<2	2	3	5	6
6	<3	3	4	5	5
7	<4	4	5	5-6	6
8	<3	3	4	4-5	5
9	<2	2	4-5	4-6	6
10	<3	3	3-4	4-5	6
11	<4	4-5	5	5	5
12	<3	3-5	5	5	5
13	<4	4	4	5-6	6
14	<2	2	3	4	6
15	<3	3	4	5	6
16	<2	2	4	4-5	5
17	<3	3	4	5-6	6
18	<4	4	5	6	6
19	<3	3	4	4-6	5-6
20	<4	4	4	4-5	5-6
21	<15	15-18	19-21	22-25	22-25
22	<8	8-12	13-17	18-25	26-35
23	<10	10-15	16-19	20-27	28-35
24	<32	32-39	40-48	49-55	56-60
25	<5	5-9	10-19	20-34	35-40
26	<3	3	4	4-6	4-6
27	<3	3	4	5	5
28	<3	3	4	4-5	4-5
29	<3	3	4	4-5	4-5
30	<4	4	5	5	5
31	<2	2	4	4-5	4-5
32	<3	3	3	5	5
33	<2	2	3	5	5
34	<2	2	2	3	6
35	<3	3	4	4-5	6
36	<2	2-3	3	4-5	6
37	<3	3	4	5	5
38	<3	3	4	5	5
39	<3	3	4	4-5	4-5
40	<2	2	3	3-5	3-5

CHAPTER 7: DEPRESSION SCREENING

Introduction

Depression plays a role in increased mortality among patients with chronic diseases. In addition, depression is a risk factor for cardiovascular disease. Screening for depression may be helpful to identify patients at risk. While a health status survey will measure changes in mental health and depression it may be useful to include depression screening as a part of your patient assessment protocol. The following questions may be used to screen for depression and provide appropriate care when needed.

1. In the past year, have you had 2 weeks or more during which you felt sad, blue, or depressed; or when you lost all interest or pleasure in the things you usually cared about or enjoyed?
2. Have you had 2 years or more in your life when you felt depressed or sad most days, even if you felt okay sometimes?
3. Have you felt depressed or sad much of the time in the past year?

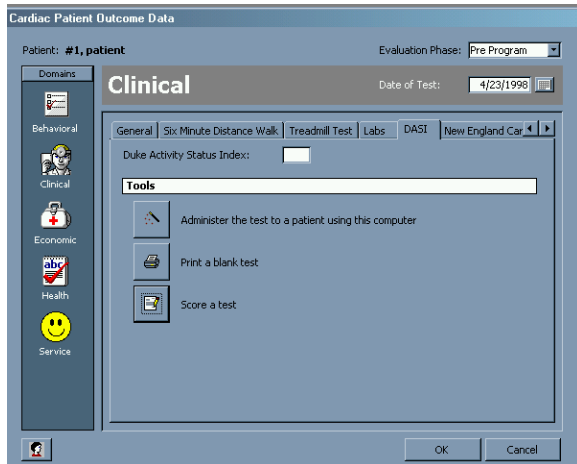
A yes response to question one may indicate a single major depressive episode. A dysthymic disorder may be indicated by a yes response to question two and a recurrent major depressive disorder may be indicated by a positive answer to question three.

Further measurement of depression can be achieved through the administration of the Beck Depression Inventory (BDI). Many research studies in the past decade have demonstrated that the BDI test and similar mood-rating devices are highly accurate and reliable in detecting and measuring depression. The inventory comprises 21 multiple choice questions to be administered by the clinician. The questions range in scope from feelings of sadness to loss of libido. Aaron T. Beck, MD authored this tool. Additional information and manuals are available through Psychological Corporation, 555 Academic Court, San Antonio TX 78204, or www.beckinstitute.org.

CHAPTER 8: DUKE ACTIVITY STATUS INDEX

Duke Activity Status Index to Measure Functional Capacity

The Duke Activity Status Index (DASI) is a patient-reported measure of ability to do several personal, household, and recreational activities, each of which was calibrated to its metabolic requirements to assess cardiovascular capacity. It is considered to be a valid measure of self-reported functional capacity that correlates well with peak oxygen uptake. The Duke Activity Status Index is scored so that a higher score indicated greater metabolic capacity.



Administration of the Duke Activity Status Index

1. The Duke Activity Status Index (DASI) (page 73) should be administered after a health status survey and before any interaction between the patient and the rehabilitation provider. Do not discuss the patient's physical function with them before they fill out the questionnaire.
2. This survey can be taken online using the Orion Outcomes or using the hardcopy test with the optional answer sheet.
3. If the hardcopy sheet is used, a rehabilitation staff member should complete the patient information on the DASI (page 73) prior to the patient completing the survey.
4. Patients are not required to fill out the index. If the patient refuses, explain to them that the questionnaire is voluntary, but it will provide helpful information about their health. Do not force the patient to fill out the index.
5. Only the rehabilitation patient should answer the questionnaire. They may not receive help from spouses, family members, or other guests. If the patient does not speak English, a translator may be used.
6. If the patient is unable to read, the DASI may be given by reading the survey to the patient.
7. Explain to the patient that this questionnaire is given to help us gain a better understanding about his or her functional capacity. Patients should be reminded that this is not a test and there are no right or wrong answers. The patient should choose the answer that best represents the way they feel.
8. If the patient does not understand a particular item, the question may be read to them verbatim, but not rephrased.
9. If a patient asks for an interpretation of a particular question, do not try to explain what the question means. Ask the patient to answer the question based upon what they think it means.
10. **When the patient returns the DASI, carefully check to see that the questionnaire has been completed. If it is not, ask the patient why the test is incomplete and encourage them to answer the remaining questions.**
11. Explain to the patient that their responses to the questions will be kept confidential.
12. Inform the patient that they will be asked to fill out the same questionnaire during future visits. Explain that this will give a better picture of the patient's health over the course of time.
13. The DASI can be completed by patients using the computer. The test is then scored and entered directly into the patients outcome data.

Duke Activity Status Index

Name: _____

Date: _____

Can you.....	Yes, with no difficulty. (1)	Yes, with some difficulty. (2)	No, I can't do this. (3)	Don't do this for other reasons. (4)
1. Take care of yourself, that is, eating, dressing, bathing, and using the toilet?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Walk indoors, such as around your house?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Walk a block or two on level ground?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Climb a flight of stairs or walk up a hill?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Run a short distance?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Do light work around the house like dusting or washing dishes?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Do moderate work around the house like vacuuming, sweeping floors, carrying in groceries?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Do heavy work around the house like scrubbing floors, or lifting or moving heavy furniture?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Do yard work like raking leaves, weeding or pushing a power mower?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Have sexual relations?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Participate in moderate recreational activities, like golf, bowling, dancing, double tennis, or throwing baseball or football?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Participate in strenuous sports like swimming, singles tennis, football, and basketball, or skiing?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Total Score _____

Scoring the Duke Activity Status Index

Can you.....	Yes, with no difficulty. (1)	Yes, with some difficulty. (2)	No, I can't do this. (3)	Don't do this for other reasons. (4)
1. Take care of yourself, that is, eating, dressing, bathing, and using the toilet?	2.75	No Points	No Points	No Points
2. Walk indoors, such as around your house?	1.75	No Points	No Points	No Points
3. Walk a block or tow on level ground?	2.75	No Points	No Points	No Points
4. Climb a flight of stairs or walk up a hill?	5.50	No Points	No Points	No Points
5. Run a short distance?	8.00	No Points	No Points	No Points
6. Do light work around the house like dusting or washing dishes?	2.70	No Points	No Points	No Points
7. Do moderate work around the house like vacuuming, sweeping floors, carrying in groceries?	3.50	No Points	No Points	No Points
8. Do heavy work around the house like scrubbing floors, or lifting or moving heavy furniture?	8.00	No Points	No Points	No Points
9. Do yard work like raking leaves, weeding or pushing a power mower?	4.50	No Points	No Points	No Points
10. Have sexual relations?	5.25	No Points	No Points	No Points
11. Participate in moderate recreational activities, like golf, bowling, dancing, double tennis, or throwing baseball or football?	6.00	No Points	No Points	No Points
12. Participate in strenuous sports like swimming, singles tennis, football, basketball or skiing?	7.50	No Points	No Points	No Points

Total Score _____

Adding the point values for all questions checked in column one only scores the DASI.

CHAPTER 9: SATISFACTION SURVEY

Patient Satisfaction Survey

Please check one: Cardiac Rehabilitation Pulmonary Rehabilitation

Your comments and concerns are very important to us. Please take a moment to fill out this satisfaction survey and return it so that we may work to provide the best program possible.

Directions: Please circle the number that corresponds to your rating of the program part.
5=excellent, 4=good, 3=satisfactory, 2=needs improvement, 1=unacceptable, and NA=not applicable.

A. Facility and Administration						
1. All the staff provided an appropriate level of customer service.	5	4	3	2	1	NA
2. The program introduction provided all the information needed to begin rehabilitation.	5	4	3	2	1	NA
3. The facilities are clean and safe.	5	4	3	2	1	NA
4. Please rate the overall care you received during the program.	5	4	3	2	1	NA
B. Exercise Program						
1. The exercise program has improved my ability to return to normal daily activity.	5	4	3	2	1	NA
2. The exercise prescription was clearly explained.	5	4	3	2	1	NA
3. The exercise prescription was progressed at an appropriate rate.	5	4	3	2	1	NA
4. The exercise staff was knowledgeable and motivated me to exercise.	5	4	3	2	1	NA
C. Education Program						
1. The education program was effective in teaching me new information and reinforced information I already knew.	5	4	3	2	1	NA
2. The instructor(s) presented the education material with enthusiasm.	5	4	3	2	1	NA
3. The instructor(s) were knowledgeable and well prepared to present education material.	5	4	3	2	1	NA
4. The education sessions covered all the necessary information and answered my questions.	5	4	3	2	1	NA
D. Counseling Program						
1. The rehabilitation program encouraged me to take my medications as prescribed.	5	4	3	2	1	NA
2. The rehabilitation program encouraged me to start or continue to exercise regularly.	5	4	3	2	1	NA
3. The rehabilitation program encouraged me to follow an appropriate diet.	5	4	3	2	1	NA
4. The rehabilitation program encouraged me to become or continue to remain a non-smoker	5	4	3	2	1	NA

CHAPTER 10: FINANCIAL OUTCOMES

Financial Outcomes Worksheet

Contact Person:				
Title:				
Organization:				
Street Address:				
City:				
State:				
Zip Code:				
Phone Number:				
E-mail Address:				
Program Base:	<input type="checkbox"/> Acute Care Hospital	<input type="checkbox"/> Physician Practice	<input type="checkbox"/> Other	
Organizational Status:	<input type="checkbox"/> For Profit	<input type="checkbox"/> Not for Profit		
Program Description:	<input type="checkbox"/> Cardiac Rehab Only	<input type="checkbox"/> Pulmonary Rehab Only	<input type="checkbox"/> Both	
Program Phases Offered:	<input type="checkbox"/> Phase One	<input type="checkbox"/> Phase Two	<input type="checkbox"/> Maintenance	
Calendar or Fiscal Year:	2002	2003	2004	2005
Number of CR Phase One Sessions Provided:				
CR Phase One Charge per Session:				
Number of PR Phase One Sessions Provided:				
PR Phase One Charge per Session:				
Number of CR Phase Two Sessions Provided:				
CR Phase Two Charge per Session:				
Number of PR Phase Two Sessions Provided:				
PR Phase Two Charge per Session:				
Number of CR Maintenance Sessions Provided:				
CR Maintenance Charge per Session:				
Number of PR Maintenance Sessions Provided:				
PR Maintenance Charge per Session:				
Percentage of Patients who are Medicare				
Percentage of Patients with Private Insurance				
Percentage of Patients who are Self Pay				
Percentage for Managed Care Discounts				
Percentage for Bad Debt				
RN - Full-time Equivalents (FTE's)				
RN – Wages Paid				
EP - Full-time Equivalents (FTE's)				
EP – Wages Paid				
RT - Full-time Equivalents (FTE's)				
RT – Wages Paid				
Other Staff - Full-time Equivalents (FTE's)				
Other Staff – Wages Paid				
Total Non-Salary Expenses				
Percentage of Revenue assigned to Overhead				

CHAPTER 11: ADDITIONAL OUTCOME MEASUREMENTS

Treadmill Stress Testing



Using a treadmill stress test is considered by many to be the gold standard for the determination of functional capacity. As such the treadmill stress test is an appropriate choice to measure outcomes of cardiac and pulmonary rehabilitation. When the treadmill stress test is selected for use as an outcome tool the clinician should select a standardized maximal protocol. This same protocol should then be used for all subsequent testing to facilitate the comparison of outcome data.

The limitations for treadmill use as an outcome tool include the determination of a test end point and cost to the patient. It has been well documented that there is a tendency to discontinue the stress test before the patient attains maximal functional capacity. Should the test be discontinued before reaching true endpoints the comparison of pre and post results is no longer possible. When possible the cost associated with measuring outcomes should be minimized

Resting Data (Measure after sitting for five minutes)	
Heart Rate:	<input type="checkbox"/>
Systolic Blood Pressure:	<input type="checkbox"/>
Diastolic Blood Pressure:	<input type="checkbox"/>
Oxygen Saturation:	<input type="checkbox"/>
Oxygen Flow Rate:	<input type="checkbox"/>
Rating of Perceived Dyspnea:	<input type="checkbox"/>

Peak Data (Measure immediately post test)	
Lowest Oxygen Saturation:	<input type="checkbox"/>
Maximum MET Level:	<input type="checkbox"/>
Heart Rate:	<input type="checkbox"/>
Systolic Blood Pressure:	<input type="checkbox"/>
Diastolic Blood Pressure:	<input type="checkbox"/>
Oxygen Saturation:	<input type="checkbox"/>
Rating of Perceived Dyspnea:	<input type="checkbox"/>

Recovery Data (Measure after sitting for five minutes)	
Heart Rate:	<input type="checkbox"/>
Systolic Blood Pressure:	<input type="checkbox"/>
Diastolic Blood Pressure:	<input type="checkbox"/>
Oxygen Saturation:	<input type="checkbox"/>
Rating of Perceived Dyspnea:	<input type="checkbox"/>

Determination of Percent Body Fat

Percent body fat can be determined through a method of choice and included in the outcome information. While the gold standard is underwater weighing, options such as skin-fold measurement, electrical impedance, and body circumferences are acceptable methods for the determination of body composition for outcome reporting. Once the method is selected this same method must be used for all subsequent testing.

Lipid Profiles for Cardiac Patients

Lipid profile information can be included on the outcome data sheet. (Optional)

1. If these laboratories have been performed prior to the start of the rehabilitation program include them in the pre program data column. Lipid profiles taken within the six months prior to the start of the program may be used for pre program lipid profiles.
2. At the completion of the rehabilitation program have these laboratories drawn and record the results on the outcome data sheet in the post program data column.
3. These labs can be repeated for all post program follow-ups. Record on the outcome data sheet.

Medical System Utilization

Prior to starting the rehabilitation program, ask the patients about their medical system utilization during the past year. At the post- program evaluation ask about medical system utilization during rehabilitation. When patients return to the rehabilitation program for their follow-ups, they should be asked about their medical system utilization since the completion of the pulmonary or cardiac program or since the last outcome evaluation.

1. The patient should be asked for the number of times that they have been admitted to the hospital as an inpatient. Record only the total number of admissions regardless of whether they resulted from either their pulmonary or cardiac disease or not.
2. Ask each patient for the number of visits they made to the emergency regardless of whether they resulted from either their pulmonary or cardiac disease or not. Record that number on the outcome data sheet.
3. Include the number of other medical visits they made to physicians regardless of whether they resulted from either their pulmonary or cardiac disease or not.
4. During the post program evaluations, record only the number of inpatient, emergency, or physician visits that occurred since the last evaluation.

SECTION III – BENCHMARKING

CHAPTER 12 – BENCHMARKING PROGRAM PERFORMANCE

Introduction to Benchmarking

Collecting outcome data on your program is not an option anymore. Outcomes are required for JACHO accreditation and for AACVPR program certification. Collecting and analyzing your program data is also an important part of continuous quality improvement (CQI). To aid the CQI process you can benchmark internally or externally. Internal benchmarking simply looks for positive changes in your program data. External benchmarking among your peers will help to document your program's effectiveness. For example it is possible that your program demonstrates continuous improvement in positive patient outcomes through internal benchmarking but when you are compared to your peers your program lags behind the patient improvement seen in other programs. In this case you would be compelled to "drill-down" in the data to find an explanation for less than average program performance. Thus external benchmarking becomes a valuable tool for advanced CQI or program Improvement (PI).

The Indiana Society National Outcomes Database for benchmarking is available to all interested programs. Benchmarking reports are provided quarterly to those programs that contribute their outcome data. The database will prompt you to export your data every 90 days. All data is held in the strictest confidence and can not be released without program approval.

Understanding the Benchmarking Report

The following diagram provides an example of the program benchmarking report. It contains data for a health status survey. All outcomes measured and entered into the database are depicted in a similar fashion. Across the bottom are four rows of data. The first row is the "All Mean", which is the average percentage of change for the indicated outcome variable of ALL rehabilitation programs participating in the program with pre and post data. The "Hi" is the average percentage of change from the program with the highest change in this outcome variable. In the third row you will find the "Low." This is the average percentage of change from the program with the lowest change for this outcome variable. The last row is data from the reporting program and the data represents their "Program Mean" or the average percentage of change for the outcome variable in their rehabilitation program.

The graph above the data is a visual representation of the data below. The single vertical line represents the range of program means for this variable. It is bounded by the "Hi" and "Low" values.

The box represents the range of change in the reporting program and the difference in the mean of reporting program versus the mean of all programs. If the box is white, the reporting program mean is above the mean of all programs. If the box is black, the reporting program mean is below the mean of all programs. Black or white does not necessarily denote a good or bad outcome in comparison to the benchmarked data. For outcome measures that should increase, (i.e. distance walked) white is good. For outcome measures that should decrease, (i.e. cholesterol) black is good.

The second report represents a comparison of your program change to the change in other programs in the state and the nation as a whole. All the numbers represent absolute change. The lowest and highest program changes are shown on either side of the average change. This should provide a representation of the range of change among programs.

Measured Change Between Pre Program and Post Program

		<i>Your Program</i> Avg	<i>Statewide</i>				<i>Nationwide</i>					
			Count	Avg	SDer	Hi	Low	Count	Avg	SDer	Hi	Low
<u><i>Behavioral Domain</i></u>												
<i>Cigarettes Smoked</i>	(cigs)	0.32	10	-0.31	0.48	0.32	-1.17	101	-0.92	3.57	2.50	-24.33
<u><i>Behavioral Compliance</i></u>												
<i>Follows Diet</i>	(true)	0.44	10	0.30	0.19	0.50	-0.13	104	0.25	0.29	1.33	-0.31
<i>Follows Medications</i>	(true)	0.10	10	0.04	0.04	0.10	0.00	104	0.03	0.08	0.38	-0.40
<u><i>Exercise Activity</i></u>												
<i>Days per Week of Exercise</i>	(days/week)	2.03	10	1.03	0.66	2.03	0.15	105	1.18	0.76	3.25	-0.51
<i>Minutes Exercising per Session</i>	(minutes)	15.62	10	17.45	9.15	38.18	6.43	105	23.80	9.39	57.56	5.00
<u><i>Clinical Domain</i></u>												
<i>Weight</i>	(lbs)	-1.23	10	-0.63	0.67	0.23	-1.54	112	-0.96	2.18	2.92	-15.33
<i>Height</i>	(inches)	-0.14	9	-0.07	0.07	0.02	-0.20	108	0.01	0.14	0.82	-0.31
<i>Percent Body Fat</i>	(%)	-1.50	4	-0.75	0.57	-0.12	-1.50	53	-1.36	1.90	2.93	-7.17
<i>Body Mass Index</i>	(kg/M ²)	-0.07	9	-0.04	0.31	0.64	-0.49	108	-0.17	0.38	0.64	-2.28
<u><i>Resting Data</i></u>												
<i>Heart Rate</i>	(bpm)	1.26	7	-2.05	1.95	1.26	-4.86	105	-1.62	3.72	15.00	-14.40
<i>Systolic Blood Pressure</i>	(mm Hg)	3.65	7	-0.56	2.51	3.65	-4.44	105	-1.21	5.38	13.00	-24.67
<i>Diastolic Blood Pressure</i>	(mm Hg)	-0.35	7	-1.08	0.77	-0.35	-2.10	105	-1.31	4.27	8.57	-22.00
<u><i>Lipid Profile</i></u>												
<i>Total Cholesterol Level</i>	(mg/dl)	23.33	9	-27.56	25.19	23.33	-67.00	87	-23.67	24.37	104.00	-106.00
<i>LDL</i>	(mg/dl)	35.00	9	-21.24	25.64	35.00	-60.25	86	-21.96	17.83	35.00	-86.00
<i>HDL</i>	(mg/dl)	-1.33	9	-0.56	5.84	10.00	-11.33	87	1.64	5.14	28.00	-11.33
<i>Triglycerides</i>	(mg/dl)	-25.67	9	-27.31	24.72	7.34	-63.60	87	-27.36	55.53	163.00	-338.00
<i>CHO/HDL</i>	(mg/dl)	1.14	9	-0.81	1.14	1.14	-2.83	87	-0.87	0.97	1.14	-6.26

SECTION IV - REFERENCES

APPENDIX 1: OUTCOME DATA SHEETS

OUTCOME DATA SHEET - PULMONARY

NAME:

Program:

C L I N I C A L O U T C O M E M E A S U R E M E N T S	G E N E R A L		Pre Program Data	Post Program Data	
		Date and Time of Test			
		Body Weight			
		Height			
	6 M I N U T E D I S T A N C E W A L K	Resting Data		(Measure after sitting for five minutes)	
		Heart Rate			
		Systolic Blood Pressure			
		Diastolic Blood Pressure			
		Oxygen Saturation			
		Oxygen Flow Rate (if applicable)			
		Rating of Perceived Dyspnea			
		Peak Data		(Measure immediately - post test)	
		Lowest Oxygen Saturation Observed			
		Distance Walked (feet)			
		Heart Rate			
		Systolic Blood Pressure			
		Diastolic Blood Pressure			
		Oxygen Saturation			
		Rating of Perceived Dyspnea			
		Recovery Data		(Measure after sitting for five minutes)	
		Heart Rate			
		Systolic Blood Pressure			
	Diastolic Blood Pressure				
Oxygen Saturation					
Rating of Perceived Dyspnea					

OUTCOME DATA SHEET - PULMONARY

NAME: _____

Program: _____

		Pre Program Data	Post Program Data	
B E H A V I O R A L	Health Status			
	What percentage of time do you follow your medically prescribed diet?			
	What percentage of time do you take your medication as prescribed?			
	How many cigarettes (cigars, etc.) do you smoke each day?			
	How many days per week do you exercise?			
	When you exercise, how long is each session?			
	Cardiac Knowledge Test (Number Correct)			
O U T C O M E M E A S U R E M E N T S	SF-36 HEALTH SURVEY			
	Physical Functioning			
	Role Functioning - Physical			
	Bodily Pain			
	General health			
	Vitality			
	Social functioning			
	Role-Emotional			
	Mental Health			
	Reported Health Transition			
		Medical System Utilization:	(1 yr before Rehab)	(during rehab)
		Emergency Room Visits (# of visits)		
	Hospital - Inpatient (# of visits)			
	Other Medical Visits (# of visits)			
E C O N O M I C	Medication Usage			
	Number of Prescribed Medications			

OUTCOME DATA SHEET - PULMONARY

NAME:

Program:

CLINICAL	GENERAL	Follow-up Period (6 mon. 1, 2, 3, 5 yr.)			
		Date and Time of Test			
		Body Weight			
		Height			
		Percent Body Fat			
	OUTCOME	6 MINUTE	Resting Data	(Measure after sitting for five minutes)	
			Lowest Oxygen Saturation Observed		
			Heart Rate		
		Systolic Blood Pressure			
		Diastolic Blood Pressure			
		Oxygen Saturation			
		Oxygen Flow Rate (if applicable)			
		Rating of Perceived Dyspnea			
		Peak Data	(Measure immediately - post test)		
		Distance Walked (feet)			
		Heart Rate			
		Systolic Blood Pressure			
		Diastolic Blood Pressure			
		Oxygen Saturation			
Rating of Perceived Dyspnea					
MEASUREMENTS	WALK	Recovery Data	(Measure after sitting for five minutes)		
		Heart Rate			
		Systolic Blood Pressure			
		Diastolic Blood Pressure			
		Oxygen Saturation			
		Rating of Perceived Dyspnea			

OUTCOME DATA SHEET - PULMONARY

NAME:

Program:

O U T C O M E	B E H A V I O R A L	Follow-up Period (6 mon. 1, 2, 3, 5 yr.)			
		Health Status			
		What percentage of time do you follow your medically prescribed diet?			
		What percentage of time do you take your medication as prescribed?			
		How many cigarettes (cigars, etc.) do you smoke each day?			
		How many days per week do you exercise?			
	When you exercise, how long is each session?				
	Cardiac Knowledge Test (Number Correct)				
	M E A S U R E M E N T S	H E A L T H	SF-36 HEALTH SURVEY		
			Physical Functioning		
			Role Functioning - Physical		
			Bodily Pain		
General health					
Vitality					
Social functioning					
Role-Emotional					
Mental Health					
Reported Health Transition					
Medical System Utilization:			(1 yr before Rehab)	(during rehab)	
Emergency Room Visits (# of visits)					
Hospital - Inpatient (# of visits)					
Other Medical Visits (# of visits)					
E C O N O M I C	Medication Usage				
	Number of Prescribed Medications				

CARDIAC PATIENT PROFILE

First Name:	Middle:	Last:
Identifier (not required) or Medical Record #		Account#
Insurance Provider:		Covered by insurance: yes / no
Primary:		Secondary:
Nickname:	Birthdate:	Education level:
Marital Status:	Occupation:	Race: Sex: M / F
Social Security #:		
Primary Physician:		
Street Address:		
City:	State:	Zip:
Home Phone #		Work Phone #
E-Mail Address:		
Rehabilitation Program (Hospital Name):		
Referring Physician:		
Primary Diagnosis: <input type="checkbox"/> PTCA <input type="checkbox"/> Valve Repair <input type="checkbox"/> Transplant <input type="checkbox"/> CHF <input type="checkbox"/> Atherectomy <input type="checkbox"/> Other _____ <input type="checkbox"/> MI <input type="checkbox"/> CABG <input type="checkbox"/> Stable Angina <input type="checkbox"/> Stent		
Secondary Diagnosis:		
Number of Exercise (Phase 2) sessions completed:		
Involved in a maintenance (Phase 3 or 4) program: No longer involved with program <input type="checkbox"/> Did not finish all sessions of program <input type="checkbox"/>		
Risk Stratification: High Medium Low N/A Return to Pre-Rehabilitation Employment: Yes <input type="checkbox"/> No <input type="checkbox"/> Not employed <input type="checkbox"/> Retired <input type="checkbox"/> Smoking: Non-Smoker <input type="checkbox"/> Smoker <input type="checkbox"/> Depression: Received Prior Counseling <input type="checkbox"/> Referred on for Counseling <input type="checkbox"/> Refused Counseling <input type="checkbox"/>		
Hemoglobin A1c: _____		<input type="checkbox"/> Beta-blocker(s) <input type="checkbox"/> Anticoagulant(s) <input type="checkbox"/> Estrogen <input type="checkbox"/> Anitplatelet(s) <input type="checkbox"/> ACE Inhibitor(s) <input type="checkbox"/> Lipid Lowering Drugs
Date Evaluations Completed: <input type="checkbox"/> Pre <input type="checkbox"/> Post <input type="checkbox"/> 6 mo. <input type="checkbox"/> 1 yr. <input type="checkbox"/> 2 yr. <input type="checkbox"/> 3 yrs. <input type="checkbox"/> 4 yrs. <input type="checkbox"/> 5 yrs.		

OUTCOME DATA SHEET - CARDIAC

NAME:

Program:

		Pre Program Data	Post Program Data
G E N E R A L	Date and Time of Test		
	Body Weight		
	Height		
	Percent Body Fat		
L I P I D S	Total Cholesterol Level		
	Low Density Lipoproteins (LDL)		
	High Density Lipoproteins (HDL)		
	Triglycerides		
Resting Data		(Measure after sitting for five minutes)	
6 M I N U T E	Heart Rate		
	Systolic Blood Pressure		
	Diastolic Blood Pressure		
Peak Data		(Measure immediately - post test)	
D I S T A N C E	Distance Walked (feet)		
	Heart Rate		
	Systolic Blood Pressure		
	Diastolic Blood Pressure		
	Rating of Perceived Exertion (Borg)		
Recovery Data		(Measure after sitting for five minutes)	
W A L K	Heart Rate		
	Systolic Blood Pressure		
	Diastolic Blood Pressure		

OUTCOME DATA SHEET - CARDIAC

NAME:

Program:

		Pre Program Data	Post Program Data
B E H A V I O R A L	Health Status		
	What percentage of time do you follow your medically prescribed diet?		
	What percentage of time do you take your medication as prescribed?		
	How many cigarettes (cigars, etc.) do you smoke each day?		
	How many days per week do you exercise?		
	When you exercise, how long is each session?		
	Cardiac Knowledge Test (Number Correct)		
H E A L T H	SF-36 HEALTH SURVEY		
	Physical Functioning		
	Role Functioning - Physical		
	Bodily Pain		
	General health		
	Vitality		
	Social functioning		
	Role-Emotional		
	Mental Health		
	Reported Health Transition		
E C O N O M I C	Medical System Utilization:	(1 yr before Rehab)	(during rehab)
	Emergency Room Visits (# of visits)		
	Hospital - Inpatient (# of visits)		
	Other Medical Visits (# of visits)		
	Medication Usage		
Number of Prescribed Medications			

OUTCOME DATA SHEET - CARDIAC

NAME:

Program:

CLINICAL OUTCOME MEASUREMENTS	GENERAL	Follow-up Period (6 mon, 1,2,3, 5 yr.)			
		Date and Time of Test			
		Body Weight			
		Height			
		Percent Body Fat			
	LIPIDS	Total Cholesterol Level			
		Low Density Lipoproteins (LDL)			
		High Density Lipoproteins (HDL)			
		Triglycerides			
	6 MINUTE DISTANCE WALK	Resting Data		(Measure after sitting for five minutes)	
		Heart Rate			
		Systolic Blood Pressure			
		Diastolic Blood Pressure			
		Peak Data		(Measure immediately - post test)	
		Distance Walked (feet)			
		Heart Rate			
		Systolic Blood Pressure			
		Diastolic Blood Pressure			
		Rating of Perceived Exertion (Borg)			
Recovery Data		(Measure after sitting for five minutes)			
Heart Rate					
Systolic Blood Pressure					
Diastolic Blood Pressure					

OUTCOME DATA SHEET - CARDIAC

NAME:

Program:

O U T C O M E M E A S U R E M E N T S	B E H A V I O R A L	Follow-up Period (6 mon, 1,2,3, 5 yr.)		
		Health Status		
		What percentage of time do you follow your medically prescribed diet?		
		What percentage of time do you take your medication as prescribed?		
		How many cigarettes (cigars,etc.) do you smoke each day?		
		How many days per week do you exercise?		
		When you exercise, how long is each session?		
	Cardiac Knowledge Test (Number Correct)			
	H E A L T H	SF-36 HEALTH SURVEY		
		Physical Functioning		
		Role Functioning - Physical		
		Bodily Pain		
		General health		
		Vitality		
		Social functioning		
Role-Emotional				
Mental Health				
Reported Health Transition				
E C O N O M I C	Medical System Utilization:	(1 yr before Rehab)	(during rehab)	
	Emergency Room Visits (# of visits)			
	Hospital - Inpatient (# of visits)			
	Other Medical Visits (# of visits)			
	Medication Usage			
Number of Prescribed Medications				

APPENDIX 2: INTERNATIONAL OUTCOMES TOOLS

Borg Scale – Spanish

ESCALA DE BORG – TABLA PARA MEDIR ESFUERZO

6	
7	EXTREMADAMENTE LIGER
8	
9	MUY LIGERO
10	
11	MAS O MENOS LIGERO
12	
13	ALGO DIFICIL
14	
15	DIFICIL
16	
17	MUY DIFICIL
18	
19	EXTEMADAMENTE DIFICIL
20	

Dyspnea Scale – Spanish

ESCALA DE DISNEA PERCEPTIBLE

0. Ninguna dificultad respirando.
1. Suave-poco grave-Evidente solo al paciente.
2. Poca dificultad – Evidente al observador.
3. Dificultad moderada – el paciente puede continuar.
4. Dificultad grave – el paciente no puede continuar.

Pulmonary Rehabilitation Patient Knowledge Test – Spanish Version

PRUEBA DE CONOCIMIENTOS SOBRE PADECIMIENTOS DEL PULMON

NOMBRE _____ FECHA _____

INSTRUCCIONES: Conteste las siguientes preguntas. Escriba la letra que mejor indique su respuesta en la hoja adjunta. No habra calificación. Sus contestaciones le ayudarán a sacar el mejor provecho del programa de rehabilitacion pulmonar.

1. ¿ Deberia usar un inhalador broncodilatador antes de hacer ejercicio?
 - a. No, me haría sentir mas tembloroso.
 - b. No, no haría diferencial alguna.
 - c. Si, me haría sentir mas fuerte.
 - d. Si, me ayudaria a prevenir la falta de oxígeno.

2. Para aumentar la tolerancia o esfuerzo en un programa de caminta, ¿ qué tanto deberia aumentar la distancia que usted camina?
 - a. Camina con un compañero o y cambiar la distancia como el lo hace.
 - b. Caminar mas rápido sin aumentar la distancia.
 - c. Aumentar la distancia gradualmente cada semana.
 - d. Doblar la distancia caminada en la semanas anteriores.

3. El médico ordena un examen para saber el nivel de gas en las areterias. ¿ Qué tipo de información dará este examen?
 - a. El nivel de oxígeno es muy bajo
 - b. El nivel de liquido es muy alto.
 - c. Hay infección.
 - d. Enfermedad del pulmón.

4. ¿Cuál de estos síntomas pudiera indicar que siente ansiedad?
 - a. Respiracion ritmica
 - b. Dificultad para dormir.
 - c. Pulso lento.
 - d. Piel reseca.

5. Cuando planea una actividad sexual, siempre es conveniente:
- a. Evitar discutir acerca de los sentimientos sexuales.
 - b. Usar un broncodilatador con anterioridad.
 - c. Tomar un tranquilizante.
 - d. Esperar a que su pareja inicie la intimidad.
6. ¿Cuál de las siguientes afirmaciones denotan negatividad?
- a. “Son responsable por mi enfermedad”
 - b. “El fumar contribuyo a mi enfermedad”
 - c. “Es mi mala suerte tener esta enfermedad”
 - d. “Mis malos habitos hacen peor la enfermedad”
7. ¿ Si al comer le falta el oxígeno, qué puede usted hacer?
- a. Comer comidas mas pequenas con más frecuencia.
 - b. Masticar la comida rapidamente.
 - c. Quitar el oxígeno mientras come.
 - d. Tomar dos vasos de agua durante la comida.
8. ¿Cuál es la mejor manera de mantener la mucosidad menos densa?
- a. Tomar un baño de vapor diariamente.
 - b. Tomar de 8 a 10 vasos de agua diariamente.
 - c. Inhalar agua de sal.
 - d. Tomar medicamentos para mantener el espesor de la mucosidad controlada.
9. ¿Cuál de los siguientes grupos es un verdadero grupo de apoyo para los pacientes con enfermedades del pulmón?
- a. Estan disponibles solo con receta del médico.
 - b. Solo son para pacientes verdaderamente graves.
 - c. Tan solo existen en grandes ciudades.
 - d. Se les encuentra en el directorio telefónico.
10. ¿Qué cosa en comun tiene el grupo de enfermedades llamado “COPD”?
- a. Dificultad en expulsar el airde de los pulmones.
 - b. Aumento en la produccion de esputo.
 - c. Imposibilidad de hacer llegar el oxígeno a los pulmones.
 - d. Necesidad del uso suplemental de oxígeno.

11. ¿ Indique cual es un síntoma comun en bronquitis cronico.

- a. Menos mucuosidad.
- b. Aumento de esputo.
- c. Falta de oxígeno al descansar.
- d. Respiracion jadeane al exhalar.

12. ¿Cuál es el propósito de respirar con los labios apretados?

- a. Aumentar la cantidad de aire respirada por boca.
- b. Mantener las viea respiratorias menores abiertas al expeler el aire.
- c. Aumentar el ritmo de la respiracion.
- d. Detener el aire en los pulmones.

13. ¿Cuál es el propósito de darle palmadas al pecho durante el drenaje postural?

- a. Aumentar la circulación.
- b. Desfleamar.
- c. Disminuir el ritmo de la respiración.
- d. Impedir los gases.

14. ¿ En qué posición se puede controlar la respiración?

- a. Acostado.
- b. Acostado o sentado.
- c. Acostado, sentado o parado.
- d. Sentado, acostado, parado o caminando.

15. ¿ Porqué es mejor usar el diafragma que el pecho para respirar?

- a. Usa monos energia.
- b. Es bueno para digestion.
- c. Ejercita el músculo del estómago.
- d. Require meonos concentración.

16. ¿Cuál ritmo para respirar se recomienda más?

- a. Inhalar y exhalar por igual cantidad de tiempo.
- b. Doblar la cantidad de inhalacion y exhalar.
- c. Exhalar lo doble de lo que inhala.
- d. El ritmo que es normal para usted.

17. ¿ Porqué no es recomendable que una persona con problemas pulmonares se recte a si misma oxígeno?

- a. El oxígeno es un medicamento que se obtiene con receta de lo contrario seria adquirido ilicitamente.
- b. El oxígeno actua como medicamento y require instrucciones especificas.
- c. Un nivel muy alto de oxígeno puede destruir los globulos rojos.
- d. La tarea del corazón aumenta si se aumenta el uso del oxígeno.

18. ¿Cuál es el mejor método de higiene para una persona con enfermedad del pulmón?

- a. Usar spray para el pelo y desodorante regularmente.
- b. Sentarse, rasurarse y ponerse maquillaje.
- c. Lavarse el cabello en el lavamanos.
- d. Estar de pie mientras usa la rasuradora y el cepillo.

19. ¿ A Joe se le acaba el oxígeno cuando se ducha. ¿ Qué puede hacer para prevenir esto?

- a. Usar agua caliente para que el vapor le abra las vias respiratorias.
- b. Apurarse a terminar de bañarse.
- c. Que alguien más le lave su espalda.
- d. Sentarse en unal silla mientras se baña.

20. ¿Cuál es el mejor ejemplo de una persona que se relaja?

- a. Imaginarse una escena serena.
- b. Ver televisión.
- c. Dormir.
- d. Jugar golf.

21. ¿Cuál de las siguientes afirmaciones indica la reaccion mas comun a la tension?

- a. Presion baja.
- b. El uso de menor cantidad de oxígeno.
- c. Un aumento de relajamiento muscular.
- d. Aceleramiento del pulso.

22. ¿ Para vestirse, que técnica es mejor?

- a. Moverse rápidamente para terminar lo más pronto posible.
- b. Sentarse para vestirse.
- c. Estar de pie mientras se viste.
- d. Vestir la parte superior primero.

23. ¿ Cuáles son los resultados de practicar ejercicio de rutina?
- a. Disminuir su habilidad para hacer ejercicio.
 - b. Aumentar su auto independencia.
 - c. Aumenta la falta de oxígeno.
 - d. Disminuye la grosura de los músculos.
24. ¿ En qué parte de pulmón el oxígeno y el monóxido de carbono cambian de lugar?
- a. Alveolo
 - b. Bronquiolo
 - c. Cavidad pleural
 - d. Traquea
25. ¿Cuál de las siguientes afirmaciones describe mejor el diafragma?
- a. Músculos pequeños entre las costillas que ayudan a estas a extenderse.
 - b. Una bolsa de tamaño mediano que rodea y protégé al corazón.
 - c. Una membrana grande que rodea cada pulmón.
 - d. Un músculo en forma de cupula que forma la pared de la cavidad del pecho.
26. ¿ Qué pequeñas fibras como cabellos llevan la mucuosidad hasta la garganta?
- a. Alveolo
 - b. Cilio
 - c. Bronquiolos
 - d. Cartilago
27. ¿ Vias respiratorias inflamadas, aumento de mucuosidad, tos cronica, son síntomas de que enfermedad?
- a. Asma
 - b. Bronquitis
 - c. Fibrosis
 - d. Enfisema
28. ¿ Cuáles son los beneficios de medicina con esteroides para para una persona con enfermedad del pulmón?
- a. Los esteroides adelgazan la mucuosidad.
 - b. Los esteroides disminuyen la inflamacion de las vias respiratorias.
 - c. Los esteroides combaten la infección.
 - d. Los esteroides aumetal los espasmos en las vias respiratorias.

29. ¿ En cuál de las siguientes circunstancias son mas efectivos los broncodilatadores?
- a. Cuando se experimenta mucha dificultad al respirar.
 - b. Despues de haber desarrollado una actividad intensa.
 - c. Inmediatamente despues de un drenaje postural.
 - d. Rutinariamente- diariamente.
30. ¿Cuál de los siguientes síntomas indican que hay falta de oxígeno en la sangre?
- a. Irritabilidad.
 - b. Hambre.
 - c. Desvelo.
 - d. Indigestion.
31. ¿Cuál de las siguientes afirmaciones parece contribuir a problemas sexuales?
- a. El usar oxígeno durante el acto sexual.
 - b. El planear de antemano el acto sexual.
 - c. El comunicar sus sentimietos a su pareja.
 - d. El temor de fracasar.
32. ¿Cuál de las siguientes afirmaciones es la mas importante para asegurar el exito de un programa de rehabilitación?
- a. El costo del programa.
 - b. La motivación del paciente.
 - c. La recommendación.
 - d. La calidad de la enseñanza
33. ¿ Qué se debe hacer si sus medicamentos le impiden dormir por la noche?
- a. No tomar la última dosis.
 - b. No tomar los medcamentos a la hora de acostarse.
 - c. Tomar el medicamento si despierta durante la noche.
 - d. Tomar todos los medicamentos por la mañana.
34. ¿ Qué parte del pulmón es dañada por la enfisema?
- a. Alveólo.
 - b. La pleura.
 - c. Los vasos capilares.
 - d. La traquea.

35. Se recomienda que usted haga ejercicio cuando usted respire:

- a. Al inhalar aire.
- b. Al expeler el aire.
- c. Cuando usted prefiera.
- d. Al inhalar o expeler aire.

36. ¿Cuál es la manera más efectiva de toser?

- a. Evitar tomar agua antes de toser.
- b. Expeler el aire por la boca antes de toser.
- c. Evitar toser fuerte una vez, y toser de a poco a poquito.
- d. Toser solamente por la mañana.

37. ¿Cuál es la mejor manera de prevenir quedarse sin oxígeno cuando va a defecar?

- a. Detener la respiración mientras empuja.
- b. Respirar hacia afuera empujando suavemente.
- c. Hacer respiraciones poco profundas.
- d. Respirar por la boca.

38. Debido a su enfermedad pulmonar, Bob no puede seguir trabajando en su actual trabajo. ¿Qué síntoma probablemente tendrá Bob durante la entrevista en su nuevo empleo?

- a. Sus vías respiratorias se contraerán.
- b. Su presión puede descender.
- c. Su digestión mejorará.
- d. El ritmo de su respiración disminuirá.

39. ¿Qué es imaginación visual?

- a. El apretar y relajar todos los músculos del cuerpo.
- b. Pensar en una palabra que es relajante.
- c. Soñar con una escena que es relajante.
- d. Concentrarse en cierta parte del cuerpo.

40. ¿Si le falta el oxígeno y experimenta pánico, qué debe hacer primero?

- a. Acostarse y relajarse.
- b. Correr y pedir ayuda.
- c. Respirar con los labios apretados.
- d. Llamar a su médico y pedir medicina.

Cardiac Patient Knowledge Test – Spanish Version

EXAMEN SOBRE PADECIMIENTOS DEL CORAZON

INSTRUCCIONES: Conteste las siguientes preguntas. Escriba la letra que mejor indique la respuesta en la hoja adjunta. No habrá calificación. Sus respuestas le ayudarán a sacar el mejor provecho del programa de rehabilitación del corazón.

1. La enfermedad de arteria coronaria es una enfermedad en la cual:
 - a. Las arterias coronarias mueren y no pueden llevar oxígeno y sangre al corazón.
 - b. Las arterias coronarias que suplen al corazón con sangre y oxígeno se constriñen como resultado de la acumulación artereosclerosis.
 - c. El corazón no puede remover cantidades adecuadas de oxígeno de la sangre que corre por las cámaras de corazón.
 - d. Todo lo anterior

2. Los resultados de enfermedad de arteria coronaria son:
 - a. Insuficiencia de dióxido de carbono al corazón.
 - b. Falta de carbohidratos al corazón.
 - c. Insuficiencia de oxígeno a las válvulas del corazón.
 - d. Insuficiencia de oxígeno al corazón.

3. Generalmente un ataque al corazón ocurre cuando el músculo del corazón no tiene suficiente oxígeno por mas de:
 - a. 24 horas
 - b. 1 hora
 - c. 30 minutos
 - d. 6 horas

4. Problemas con el ritmo corazón pueden resultar fatales si el corazón no recibe una cantidad apropiada de oxígeno por:
 - a. Unos cuantos minutos
 - b. Mas de 20 minutos
 - c. Mas do 30 minutos.
 - d. El corazón no necsita oxígeno.

5. El oxígeno que el corazón requiere cuando se hace ejercicio:
 - a. Siempre el mismo.
 - b. Disminuye en properción a la intensidad del esfuerzo.
 - c. Aumenta en proporción a la intesidad del esfuerzo.
 - d. Ninguno.

6. Después de un ataque al corazón, el área dañada:

- a. Se recupera por medio de la cicatrización de los tejidos pero no recupera la elasticidad anterior al ataque.
- b. Se recupera por medio de la formación de coágulos y recupera su función normal.
- c. Se recupera por medio de la formación de coágulos pero no recupera su función normal.
- d. Sana por osmosis.

7. El proceso por el cual el corazón se recupera después de un ataque al corazón es de:

- a. 1 a 3 semanas
- b. 16 a 18 semanas
- c. 6 a 8 semanas
- d. 24 a 48 semanas

8. Si usted participa en un programa de ejercicio y hay un cambio en su estado de salud, por ejemplo, otro ataque al corazón, un procedimiento importante, o un cambio en su medicamento, usted debe:

- a. Continuar con el programa de ejercicios como de costumbre.
- b. Tomarlo con calma por unas semanas y después seguir con el programa al mismo ritmo de antes.
- c. Bajo ninguna circunstancia debe usted continuar con el programa de ejercicio sin consultar a su médico.
- d. Pedir consejo a algún amigo acerca de esta situación.

9. El fumar aumenta el riesgo de enfermedad del corazón porque:

- a. La nicotina que se inhala al fumar disminuye el tamaño de los vasos capilares.
- b. El humo del cigarro reduce el ritmo del corazón.
- c. El humo del cigarro no afecta al corazón, solo a los pulmones.
- d. Los cigarrillos son menos dañinos después del primer ataque al corazón.

10. Durante el programa de ejercicio, si siente algún síntoma relacionado con su corazón, no debe excederse nunca del:

- a. 60 por ciento del ritmo de su corazón.
- b. 85 por ciento del ritmo de su corazón.
- c. 100 por ciento del ritmo de su corazón.
- d. Del síntoma relacionado con el ritmo del corazón.

11. Los siguientes factores significan un riesgo para usted. ¿ Cuáles puede cambiar?

- a. Su historial de familia, sexo
- b. Edad, origen.
- c. Nivel de colesterol. Fumar cigarrillos.
- d. Ninguno.

12. ¿ Por Cuánto tiempo debe usted tomar el pulso para calcular el ritmo del corazón durante el ejercicio?

- a. 30 segundos
- b. 20 segundos
- c. 10 segundos
- d. 60 segundos

13. Si siente un malestar pasajero durante el programa de ejercicio, usted debe:

- a. Disminuir el ritmo del ejercicio y parar si el malestar no desaparece en 2 o 3 minutos.
- b. Continuar con el ejercicio al mismo ritmo y disminuir solo si el malestar empeora.
- c. Disminuir el ritmo del ejercicio inmediatamente y parar solo si el malestar no desaparece en 10 o 15 minutos.
- d. Seguir haciendo ejercicio aún cuando el malestar persista.

14. Si usted está haciendo ejercicio sin supervisión y el malestar en el pecho continúa por mas de 2 o 3 minutos despues de parar, usted debe de:

- a. Recostarse hasta que el malestar desaparezca.
- b. Continuar con su rutina de ejercicios.
- c. Tomar una tableta de nitroglicerina.
- d. Llamar al 911.

15. Si el malestar en el pecho no mejora después de haber tomado 3 tabletas de nitroglicerina tomadas con 5 minutos de diferecia, usted debe:

- a. Recostarse hasta que el malestar desaparezca.
- b. Tomar otra tableta de nitroglicerina y esperar 5 minutos más para ver que pasa.
- c. Llamar 911 o llamar al servicio de emergencia inmediatamente.
- d. Esperar hasta la mañana para ver como se siente.

16. La mayoría de las complicaciones en los enfermos con problemas cardiacos durante una rutina de ejercicios ocurre:
- a. Durante la mitad de la rutina de ejercicios.
 - b. El día después del ejercicio.
 - c. Al principio o al final de la rutina de ejercicios.
 - d. Antes de empezar con los ejercicios.
17. Un calentamiento adecuado es de vital importancia para las personas con problemas de arteria coronaria porque:
- a. Aumenta la temperatura del cuerpo y disminuye el peligro de infección.
 - b. Ayuda a mejorar el tiempo del ejercicio y aumenta la energía.
 - c. Ayuda a la circulación el tiempo suficiente para ajustarse al aumento de oxígeno que el corazón requiere.
 - d. Aumenta el riesgo de un ataque al corazón.
18. ¿Cuál es la mejor manera para las personas con enfermedad de arteria coronaria para enfriarse después de los ejercicios?
- a. Darse un baño frío.
 - b. Dejar de hacer ejercicio y acostarse de espaldas.
 - c. Disminuir la intensidad de los ejercicios gradualmente para que el ritmo del corazón vuelva a la normalidad.
 - d. Sentarse y ver televisión.
19. Para evitar la deshidratación cuando se hace ejercicio en un día caluroso y húmedo, usted debe:
- a. Tomar un vaso de agua cada cinco minutos durante el ejercicio.
 - b. Tomar un vaso de agua cada 20 minutos durante el ejercicio.
 - c. Tomar un vaso de agua cada 60 minutos durante el ejercicio.
 - d. Tomar un vaso de agua todos los días que haga ejercicio.
20. Para evitar que la temperatura corporal aumente excesivamente cuando se hace ejercicio en días calurosos y en espacios abiertos, estos son 4 importantes factores a seguir:
- a. Darse un baño con agua fría antes de empezar los ejercicios; aclimatizarse adecuadamente; tomar agua durante los ejercicios y usar cachucha durante el ejercicio.
 - b. Limitar el ejercicio en espacios abiertos en días muy calurosos; aclimatizarse adecuadamente; beber agua durante los ejercicios y vestir apropiadamente.
 - c. Limitar el ejercicio durante los días calurosos, aclimatizarse adecuadamente. Beber agua; y pedir a su médico un bloqueador beta.
 - d. No hacer ejercicio.

21. Hacer ejercicio cuando se tiene la gripe es peligroso, por lo tanto usted debe:
- a. Esperar hasta que su temperatura sea normal por lo menos por 24 horas y volver al nivel normal de actividades gradualmente por espacio de una semana.
 - b. Esperar hasta que su temperatura sea normal por lo menos per 24 horas y volver al nivel normal de actividades gradualmente despúes de un día o dos.
 - c. Continuar haciendo ejercicio pero con menos intensidad.
 - d. La gripe es una enfermedad nada comparable con un ataque al corazón, asi que siga usted con sus ejercicios.
22. Un factor importante para hacer ejercicios durante la temporada invernal es:
- a. Usar ropa gruesa.
 - b. Usar un par de zapatos cómodos.
 - c. Usar varias capas de ropa.
 - d. No debe hacer ejercicio durante el invierno.
23. Para evitar el riesgo de exponerse a una gran concentración de monóxido de carbono, las personas con enfermedades de arteria coronaria deben de:
- a. Hacer ejercicio solamente por las tardes.
Evitar hacer ejercicio donde haya mucho tráfico y gran concetracion de monóxido de carbono, especialmente durante las horas de mucho tráfico. Trate de mantenerse cuando menos 22yardas (20 metros) de distacia del humo del monóxide de carbono.
 - b. Evitar hacer ejercicio donde haya mucho tráfico y gran concetracion de monóxido de carbono, especialmente durante las horas de mucho tráfico. Trate de mantenerse cuando menos 5.5 yardas (5 metros) de distancia del humo del monóxido de carbono.
 - c. Evitar hacer ejercicio donde haya mucho tráfico y gran concetracion de monóxido de carbono, especialmente durante las horas de mucho tráfico. Trate de mantenerse cuando menos 5.5 yardas (5 metros) de distancia del humo del monóxido de carbono.
 - d. Hacer ejercicio solamente en espacios interiores.
24. Cuándo se hace ejercicio en lugares de altitud más alta que lo normal, usted debe:
- a. Disminuir el ritmo de su ejercicio y tomarse el pulso frecuentemente.
 - b. Disminuir el ritmo de su ejercicio y tamarse el pulso con menos frecuencia.
 - c. Aumentar el ritmo de su ejercicio y tomarse el pulso con mas frecuencia.
 - d. Aumentar el ritmo de su ejercicio y tomarse el pulso con menos frecuencia.
25. Para obtener los mejores resultados de su programa de ejercicios sin grandes riesgos usted debe:
- a. Hacer ejercicio aerobicos como esprintar.
 - b. Hacer ejercicio aeróbico moderado como caminar aprisa y trotar.
 - c. a y b
 - d. Nada de lo anterior.

26. Una vez que usted haya asistido al programa de rehabilitación para enfermedades cardíacas por doce semanas y haya sido aprobado para hacer ejercicio sin supervisión, es mejor que usted:
- a. Continúe haciendo ejercicios en casa bajo la supervisión de su médico o en instalaciones para rehabilitación.
 - b. Continúe haciendo ejercicios en un gimnasio porque usted ya no requiere la supervisión de su médico o de otros especialistas en enfermedades cardíacas.
 - c. Continúe haciendo ejercicios en casa ya que usted no requiera la supervisión de su médico ni de otros especialistas en enfermedades cardíacas.
 - d. Deje de hacer ejercicio porque ya está totalmente recuperado.
27. Las personas con enfermedades de arteria coronaria generalmente deben comenzar un programa de entrenamiento para aumentar su fuerza solo si:
- a. Ha participado regularmente en un programa de rehabilitación cuando menos por 12 semanas.
 - b. Si tienen una capacidad para hacer ejercicio de cuando menos 4 METS.
 - c. No están en terapia de bloqueadores beta.
 - d. Cualquier persona puede levantar pesas sin restricción.
28. ¿Cuál de las siguientes actividades son mejores para las personas con enfermedad de arteria coronaria?
- a. Baloncesto, rebote, o esqui acuático.
 - b. Levantamiento de pesas, sentadillas, esprintar.
 - c. Caminar, nadar, y bicicletear.
 - d. Todo.
29. Si siente dolor en el pecho mientras maneja:
- a. Vaya hasta el hospital más cercano.
 - b. Vaya a su casa.
 - c. Pare y recuétese.
 - d. Para, tome una tableta de nitroglicerina y pida ayuda.
30. Actividad sexual para el enfermo de un ataque del corazón:
- a. Prohibidas.
 - b. Solo si son aprobadas por su médico.
 - c. Solo con el consentimiento de su pareja.
 - d. No son necesarias a su edad.

31. La presión alta puede ser a veces ser controlada haciendo comidas:

- a. Bajas en grasa y sal.
- b. Altas en colesterol.
- c. Altas en carbohidratos.
- d. Con mucha vitamina D.

32. Si usted considera que como resultado de sus medicinas usted tiene una erupción cutánea, calambres en los músculos, náusea o vómito por más de un día, usted debe:

- a. Dejar de tomar su medicina hasta su próxima visita al doctor.
- b. Disminuir la dosis para ver si mejora.
- c. Comprar medicina para ver si se siente mejor.
- d. Llamar a su médico antes de hacer algún cambio en sus medicamentos.

33. ¿Cuál de las siguientes declaraciones es verdad acerca de las tabletas de nitroglicerina:

- a. Las tabletas de nitroglicerina deben de ser guardadas bien tapadas en un lugar de poca luz o en una botella de metal aisladas de temperaturas extremas, y reemplazadas entre 6 y 12 meses después de abierta.
- b. La nitroglicerina puede ser envuelta en un pañuelo desechable en una bolsa o bolsillo, sin necesidad de reemplazar las tabletas viejas.
- c. Las tabletas de nitroglicerinas deben ser guardadas en el refrigerador donde no se deshagan o necesiten reemplazarse.
- d. La nitroglicerina puede ser guardada junto con sus otras pastillas y reemplazarse después de un año.

34. El dolor de angina puede sentirse en:

- a. La espalda
- b. La quijada
- c. El pecho
- d. Todo

35. De estos alimentos, cuál tiene el mayor contenido de sal?

- a. Frutas frescas y verduras.
- b. Carnes para emparedados, quesos procesados y productos enlatados.
- c. Rebanada de carne de res asada.
- d. Una ensalada con aderezo de vinagre y aceite.

36. Para disminuir la grasa en la sangre necesita evitar comer alimentos con azucar y mantener su peso ideal. Esta grasa en la sangre es:
- a. Hemoglobina
 - b. Albumina
 - c. Triglicerios
 - d. Creatinina
37. ¿Cuál de la siguientes afirmaciones tiene el más alto nivel de colesterol y deben evitarse cuando se tiene padecimiento del corazón?
- a. Harinas y pastas.
 - b. Verduras y frutas
 - c. Yemas de huevo, tocino y salchichón.
 - d. Pasteles.
38. Si usted padece de enfermedades del corazón e insuficiencia cardiaca no debe de:
- a. No debe hacer ejercicio en clima caluroso y humedo.
 - b. Hacer ejercicio al aire libre cuando la temperatura es de 40 y 70 grados.
 - c. Hacer ejercicio cuando la humedad es menos de 65 por ciento.
 - d. Hacer ejercicio en una instalacion con clima artificial.
39. ¿Cuál de las siguientes afirmaciones son sintomas de esfuerzo excesivo?
- a. Falta de oxígeno.
 - b. Mareos
 - c. Exremo cansancio.
 - d. Todas las opciones.
40. ¿Para establecer un ritmo en un programa de caminata por cuanto debe de aumentar la distancia que usted camina?
- a. Caminar con un compañero y cambiar la distancia al igual que el compañero.
 - b. No trate de aumentar la distancia, solo la velocidad.
 - c. Aumente la distancia gradualmente semanalmente.
 - d. Cada semana aumente el doble de lo caminado la semana anterior.

APPENDIX 3: CLINICAL OUTCOMES DATABASE



Letter of Introduction

Dear Sir or Madam:

How much is your rehabilitation program improving the health of your patients? For most, this is a very difficult question to answer quantitatively. Cardiovascular and pulmonary rehabilitation programs across the nation are beginning to collect outcome data to answer this question effectively.

Collecting outcome data on your program is not an option anymore. It is required for JCAHO accreditation and for AACVPR program certification. Collecting and analyzing the outcome data from your program is also an important part of continuous quality improvement. However, only benchmarking among your peers will help to document the true effectiveness of your program.

The key to facilitating this comparison between programs is the standardization of the outcome data collection and analysis methods used. If you are collecting outcome data without standardization, then you have no frame of reference for how your program is performing compared to the programs of your peers.

To meet this need, Orion Software Development has created the Orion Outcomes. This software follows the outcomes program developed by the Indiana Society of Cardiovascular and Pulmonary Rehabilitation (ISCVPR). A copy of the Outcomes Program Manual is freely available for download from our web site at [http://www.Orion Outcomes.net/](http://www.OrionOutcomes.net/). This program is based on standard analysis tools such as the six-minute walk and a health status survey. Facilities from all over the nation have adopted this program and have begun collecting outcome data. You will have the ability to export your data and send it to an outcome collection site for processing. These sites will return benchmarking reports to you on a quarterly basis.

We encourage you to share this possibility with your colleagues in order to create an outcome collection program in your community.

I have included an information sheet, some sample reports, and an order form for your perusal.

Please contact us if you have any questions at (720) 494-7950. Also, please visit our web site at [http://www.Orion Outcomes.net/](http://www.OrionOutcomes.net/) for more information and outcome resources.

Sincerely,

A handwritten signature in black ink, appearing to read "Brandon Fuller", is written over a horizontal line.

Brandon Fuller
President

ORION

Software Development

Partnerships

In order to realize our vision of a standardized outcome platform, Orion Software Development is teaming with several different types of partners, each of whom brings unique value-added skills and services that enhance the Orion Outcomes. Orion Software Development is committed to leveraging existing industry standards and technologies to provide seamless integration from the Orion Outcomes to common user environments.

The Indiana Society of Cardiovascular and Pulmonary Rehabilitation (ISCVPR) developed the first standardized statewide outcomes program. Orion Software Development has worked with ISCVPR to provide the software needed to support this program. Orion and ISCVPR continue to work together to promote and further outcomes and their usage in the cardiopulmonary clinical environment.



Quinton Instrument Company is Orion Software Development's premier channel partner. The Orion Outcomes is an option on the Quinton Q-Tel telemetry system. Patient and session data can be exported from the Q-Tel system, which can be imported directly into the Orion Outcomes.

Life Sensing Instrument Company is an Orion Software Development channel partner. The Orion Outcomes is bundled with the LSI TrensCenter telemetry system. Patient data can be exported from the TrensCenter system, which can be imported directly into the Orion Outcomes.



ScottCare and Orion Software Development have worked together to provide a data link between TeleRehab cardiac telemetry system and the Outcome Data Management. Using the TRExport from ScottCare, you can export patient data, which can be imported directly into the Orion Outcomes.

For more information, see <http://www.orionsoftwaredev.com/>

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