



The AdMIRable Review

MIRR PHYSICIAN SPOTLIGHT BRYAN D. CHASTAIN, MD

INSIDE THIS ISSUE

PHYSICIAN SPOTLIGHT:	1
PULMONARY IMPAIRMENT RATINGS	3
19TH TN WC EDUCATION CONFERENCE	8

The AdMIRable Review EDITORIAL BOARD

ABBIE HUDGENS, ARM, AIC
Administrator

JAY BLAISDELL, CEDIR
MIRR Program Coordinator

JEFF FRANCIS
Assistant Administrator

TROY HALEY, JD
Director, Administrative
Legal Services

JEFFREY E. HAZLEWOOD, MD
Assistant Medical Director

BRIAN HOLMES
Director, Mediation Services

RICHARD MURRELL, JD
Director, Quality Assurance

JAMES B. TALMAGE, MD
Assistant Medical Director

ROBERT B. SNYDER, MD
Medical Director

From serving as the Medical Director of a local nursing home to attending newborns in River Park Hospital Family Birth Unit, Bryan D. Chastain’s current practice in McMinnville, Tennessee, is “very diverse.” He has a substantial occupational medicine practice and is the Medical Director for the Warren County School System. An active member of the MIRR since 2013, he has rated injuries from nearly every chapter of the *AMA Guides*™.

“I applied for a position on the MIRR out of curiosity,” says Dr. Chastain. “I was pleasantly surprised by the professionalism of the program’s leadership and also their willingness to help me assimilate. I am an older physician with over thirty years of service. I have found this to be a great opportunity to use the tools I have accumulated during that time, but more than that, I found those tools becoming sharper because of my involvement in the MIRR.”

Dr. Chastain has served the people of McMinnville, Tennessee, since 1988, starting with a group practice called McMinn-



BRYAN D. CHASTAIN, MD

ville Medical Center, then through a solo practice, which he integrated into St. Thomas Health Services in 1996. He worked in another group practice in 1999 before finding his current home as the principle physician of The Health Group of McMinnville. He has been affiliated with River Park Hospital, McMinnville, since 1988, where he was Chief

(Continued on page 2)

MIRR PHYSICIAN SPOTLIGHT BRYAN D. CHASTAIN, MD

(Continued from page 1)

of Staff from 1991 through 1996 and served as Chairman of both the Department of Utilization Review and the Department of Clinical Ethics. He now serves on the Peer Review committee.

Dr. Chastain received his undergraduate degree from the University of Texas, Arlington, and his medical degree from the medical branch of the University of Texas, Galveston. He is certified through the American Board of Family Practice and is a current member of the American Academy of Family Physicians and the Tennessee Academy of Family Physicians. He is a past president of the Warren County Medical Society and a Director of District IV of



Dr. and Mrs. Chastain with their daughter.

the Tennessee Academy of Family Practitioners. Previously, he was also the Warren County Plant Physician of Bridgestone/Firestone in Morrison, Tennessee. He is certified in basic life support and advanced cardiac life support through the American Heart Association. He is also certified by the National Registry of Certified Medical Examiners.

Similar to Dr. Chastain's medical practice, his hobbies and personal interests are also highly diverse, ranging from mountaineering, snow skiing, and Harley Davidsons to home restoration, camping, and woodturning: "My wife and I restored a historic home in McMinnville and had it placed on the National Register. It took three years, but we finally moved in and lived there until our kids left home. We sold it, and now live in a small log cabin on twenty acres atop the Cumberland Plateau. My current obsession is with theology. My family attends a multicultural church in Chattanooga where we worship as often as our schedule allows. It is a one hour drive, but a drive that we never seem to mind."

Born in Fayetteville, Arkansas, Dr. Chastain moved to DeQueen, Arkansas, at the age of six and developed a long-time friendship with a classmate whose father operated a

(Continued on page 10)

"Dr. Chastain has served the people of McMinnville, Tennessee, since 1988."

PULMONARY IMPAIRMENT RATINGS

James B. Talmage, MD

Jay Blaisdell, CEDIR

Differences in pulmonary impairment ratings are often the result of suboptimal lung function test results. Since additional testing may be needed before the MIR Physician conducts the physical examination, pulmonary impairment rating cases are unique within the MIRR.

DEFINITIONS

Forced Vital Capacity (FVC) is the amount of air that the subject can forcibly exhale after taking the deepest breath possible during spirometry. The standard measurement of FVC is Forced Expiratory Volume (FEV). Forced expiratory volume can be refined into the amount of air expired during the first (FEV1), second (FEV2), and third (FEV3) seconds of the forced breath. A subject without lung obstruction normally can expire eighty percent or more of predicted FVC in the first second. Prediction values are found in spirometric indices derived from normal subjects of the same demographics, using similar equipment under similar circumstances. Today, most hospital respiratory therapy departments do this testing and have their testing equipment programmed to derive the predicted (expected) result from the NHANES III survey data, as recommended by the *Guides*[™], 6th Edition. The ratio representing the percentage of forced vital capacity that the subject can exhale in the first second of expiration is FEV1/FVC. It is an important reference value used to distinguish between obstructive and restrictive lung disease. When FEV1/FVC is less than eighty percent, the reading likely indicates an obstruction in the lungs. Lung Diffusing Capacity for Carbon



Monoxide (DLco) essentially measures the ability of the alveoli in the lungs to permit gas exchange to occur between the alveoli and the pulmonary capillary blood. This test is the most sensitive test for interstitial lung disease. Maximal Oxygen Uptake (VO₂ max) is the maximum rate of oxygen consumption during peak exercise; it is often measured as milliliters of oxygen used in one minute per kilogram of the subject's body weight.

PREREQUISITES

To rate pulmonary impairment according to Chapter 5 of the *AMA Guides*[™], 6th Edition, the MIR Physician should obtain test results from spirometry and DLco on the subject in question. For test results to be considered valid, the tests should be administered according to American Thoracic Society (ATS) criteria. The test should have been performed without bronchodilators, and if the test is

(Continued on page 4)

PULMONARY IMPAIRMENT RATINGS

(Continued from page 3)

abnormal, it should have been repeated after administration of a bronchodilator (typically 4 puffs of albuterol for a total inhaled dose of 400 mcg). The test should have been performed less than 1 year before the evaluation. Maximal Oxygen Uptake (VO₂ max) test results are typically not available or necessary to rate pulmonary dysfunction if spirometry and DLco test results are available, but may be used also. Short acting drugs (e.g. albuterol, ipratropium, etc.) should not have been used for 4 hours before testing, and long acting drugs (e.g. salmeterol, formoterol, etc.)

should not have been used for 12 hours before testing. No cigarettes should have been smoked in the hour before testing (*Guides*[™], 6th Ed., pg. 83). If the MIR Physician determines that the available lung function tests results are suboptimal, outdated, or not in accordance with criteria set forth by the ATS, the MIR Physician may consult with the MIRR Program Coordinator, pursuant to the MIRR Program Rules, to arrange for additional testing.

TN Rules and Regulations 0800-2-20-.07 (2): *Routine tests necessary for a complete evaluation, such as range of motion, should be performed by the MIR Registry physician as part of the evaluation at no additional cost. More involved lung function testing including additional spirometry because the results in the medical record do not demonstrate that acceptability and repeatability criteria have been satisfied, measurement of DLCO and Vo₂ Max, and pre- and post-bronchodilator spirometry or methacholine challenge tests in cases of asthma, if not reasonably current and available in the medical record should be discussed with the Program Coordinator, and if approved can then be ordered by the MIR physician at a testing facility reasonably near the worker's residence, with the employer/insurer financially responsible for the testing.*

OBJECTIVE TEST RESULTS AS KEY FACTOR

Each diagnosis table in Chapter 5, The Pulmonary System, is divided into different variables or “factors” that determine the impairment rating. For example, in Table 5-4, Pulmonary Dysfunction (pg. 88), the three variables are (1) History, (2) Physical Findings, and (3) Objective Test Results. The primary or “key factor” is used to assign the impairment class within each grid. Throughout the pulmonary chapter, Objective Test Results are used as the key factor and, by extension, to assign the impairment to one of the five possible impairment classes: Class 0 (0% WPI), Class 1 (2% to 10%), Class 2 (24% to 40%), Class 3 (24% to 40% WPI), and Class 4 (45% to 65% WPI).

For pulmonary dysfunction, the Objective Test Results that can be used to assign the impairment class are Functional Vital Capacity (FVC), Forced Expiratory Volume in the First Second of Expiration (FEV₁), the ratio of Forced Expiratory Volume in the

(Continued on page 5)

PUMONARY IMPAIRMENT RATINGS

(Continued from page 4)

First Second of Expiration to the subject's total Functional Vital Capacity (FEV1/FVC), Lung Diffusing Capacity for Carbon Monoxide (DLco), and Maximal Oxygen Uptake (VO₂ max). For Asthma (Table 5-5, pg. 90), the Objective Test Results that are used are the methacholine Provocation Concentration (PC20) that will cause a twenty percent fall in FEV1 or the Maximum Postbronchodilator (after albuterol therapy) FEV1 Percentage Predicted. Both of these have the footnote "b" denoting "key factor" in the Asthma table (Table 5-5). A subject with lung cancer, where tumor is still present, automatically receives Class Four impairment.

LUNG FUNCTION TESTING CONSIDERATIONS

The European Respiratory Journal¹ offers "general considerations for lung functioning testing" formulated by a task force composed of the American Thoracic Society and European Respiratory Society (ERS). This joint statement may serve as an international standard for lung function testing, with the following summary underscoring salient points for test validity consideration. An alternative resource is the CDC/NIOSH review² of spirometry.

The subject may be tested while sitting in a firmly grounded chair or standing, though sitting is preferable for safety reasons in the event that the subject be-

comes lightheaded. Obese subjects, however, or "those with excessive weight in midsection, will frequently obtain deeper inspiration when tested in the standing position." The subject's age, height, weight, gender, race, and body mass index should be recorded for reference values. The age should be expressed in years. Height should be **measured** without shoes, with the feet together, standing as tall as possible with the eyes level and looking straight ahead. The technician should also record the administration of any inhaled or oral medications that might alter the results of the tests. Ambient temperature, barometric pressure and time of day, must be recorded. Prior to the tests, subjects should avoid smoking within at least one hour of testing, consuming alcohol within four hours of testing, performing vigorous exercise within thirty minutes of testing, wearing clothing that restricts full chest and abdominal expansion, and eating a large meal within two hours of testing. The technician conducting the tests should meet the ATS published recommendations for personnel conducting pulmonary function tests. A laboratory director usually interprets the test results by determining their reliability and classifying them relative to a reference population. The test conditions and demographics of the reference population should mirror that of the subject being evaluating as closely as possible.

(Continued on page 6)

¹Pellegrino R, Viegi G, Brusasco V, et al. Interpretative Strategies for lung function tests. Eur Respir J 2005; 26: 948-68. <http://rheum.cecentral.com/assets/2172/Interpretative%20strategies%20for%20lung%20function%20tests.pdf>

²<http://www.cdc.gov/niosh/docs/2012-116/pdfs/2012-116.pdf>

PULMONARY IMPAIRMENT RATINGS

(Continued from page 5)

ACCEPTABILITY/REPEATABILITY CRITERIA

Spirometry should also meet the acceptability and repeatability criteria promulgated by the ATS and ERS, herein summarized:

The subject should have a good start, with satisfactory exhalation, and without hesitation, coughing (during the first second of exhalation), glottis closure, early termination, suboptimal effort, mouth or nose leak, extra breath, or obstructed mouthpiece. The 6th Edition states good effort reproducibility is defined as having less than five percent variation in the FVC or 0.15 liters, whichever is greater, on at least the best 2 of 3 exhalations. For exhalation to be deemed satisfactory, it should typically have duration greater than or equal to six seconds or a plateau in the volume-time curve, if the subject cannot continue to exhale. Once the technician has obtained three spirometry tests that meet the above acceptability criteria, repeatability

criteria should be applied: The test session may be concluded if the two largest FVC values are within .15 liters of each other and the two largest FEV1 values are also within .15 liters of each other. If these repeatability criteria are not met, the technician may continue testing until they are met for eight or so more attempts or until the subject cannot or should not continue.

MODIFIERS OR NON-KEY FACTORS

Each class of impairment (except 0) has five grades within it: A, B, C, D, and E. The default value for each impairment class is grade C, which is in the middle of possible impairment outcomes for the impairment class in question. Once the evaluator uses Objective Test Results to assign the impairment class with the default grade of C, then the non-key factors are considered to determine whether the impairment should be adjusted from the default value.



To determine the adjustment, the impairment class integer is subtracted from each of the non-key factor integers and the differences are summated for the net adjustment. A positive adjustment will move the impairment percentage to the right of the default value for a final grade of D or E. A negative adjustment will move the impairment value to the left of the default value for a final grade of A or B. Even if the adjustment is more than the number 2, it can never move the impairment rating into another impairment class.

(Continued on page 7)

PULMONARY IMPAIRMENT RATINGS

(Continued from page 6)

For pulmonary dysfunction (Table 5-4, pg. 88), the non-key factors are History and Physical Findings. While the Burden of Treatment Compliance (BOTC) is used in some other internal medicine chapters of the *AMA Guides*[™], 6th Edition, it is not used in the pulmonary chapter since any burden of ongoing treatment is already incorporated into the tables themselves. History should be recorded in the MIR Report as it was related to the MIR Physician by the subject and should not be confused with a summary of medical records reviewed. Dyspnea, hemoptysis, sputum production, cough, wheezing, tobacco use, and occupational history should all be documented in detail. Whether supplemental oxygen is used intermittently or continuously should be documented.

Physical examination should document vital signs (including room air oxygen saturation percentage), rib cage or spinal deformities, digital clubbing, pursed lips, cyanosis, and auscultation results, especially the “intensity, quality, and location of wheezing, rhonchi, and rales” as well as “whether they are heard during inspiration, expiration, or both: (*Guides*[™], 6th Ed., pg. 81). A “six minute walk test” is a standard test of pulmonary reserve in lung disease patients, and if performed in the office while the impairment rating physician monitors pulse, respiratory rate, and oxygen saturation immediately before and immediately after the walk, permits assessment of effort, exercise ability, and the presence or absence of oxygen desatura-



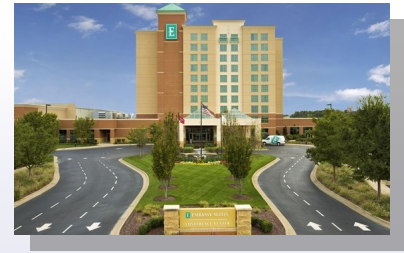
tion during level ground walking. Unfortunately, the 6th Edition text says to document the History and the Physical Exam, but Table 5-4 expects the physician to choose a Class for History and a Class for Physical Exam based solely on the words “mild,” “moderate,” or “severe”. These undefined words could be interpreted differently by different examiners, which may lead to variation in ratings assigned by different examiners.

For Asthma (Table 5-5, pg. 90), the non-key factor is “Clinical Parameters,” referring to “minimum medication need, frequency of attacks, etc.” (*Guides*[™], 6th Ed, pgs. 89-90). To use Table 5-5 the examiner needs to know the relative potency of the examinee’s inhaled corticosteroid relative to beclomethasone. Resources^{3,4} for the comparison are available.

³<http://www.nhlbi.nih.gov/health-pro/guidelines/current/asthma-guidelines/quick-reference-html#estimated-comparative-daily-doses>

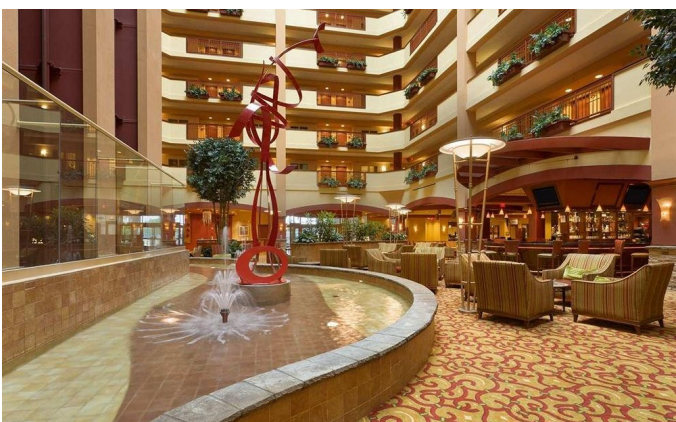
⁴Colice GL. Comparing Inhaled Corticosteroids. *Respir Care* 2000; 45 (7): 846-85.
https://c.aarc.org/marketplace/reference_articles/07.00.0846.pdf

19th ANNUAL TENNESSEE WORKERS' COMPENSATION EDUCATION CONFERENCE JUNE 21-23, 2016



Registration for the 19th Annual Tennessee Workers' Compensation Education Conference remains open. The 2016 conference, to be held on June 21 - 23, 2016, has moved and will be conducted at the beautiful Embassy Suites Nashville Southeast Hotel in Murfreesboro, Tennessee. This year's conference will feature two nationally recognized keynote speakers—Dick Beardsley and Carl Van. Dick Beardsley, international best-selling author, former world class athlete, subject of the feature film entitled *Against the Wind*, and recovering pain medicine addict, will be the opening keynote speaker and will address the audience on Tuesday.

For a brief moment in the early '80s Dick Beardsley became the most famous runner/athlete in the world - by losing a race. In the 1982 Boston Marathon, Beardsley, foiled by a motorcycle that cut him off near the end, finished two seconds behind Alberto Salazar in a contest often called one of the most memorable in marathon history. It was the closest finish ever at the world's premier marathon, and both runners broke the course and the American records.



The story of Beardsley's running career alone is the stuff of legends, but it is the story that comes after that draws people in and keeps them listening. Beardsley is a true survivor. After retiring from running, he had a series of near fatal accidents that left him addicted to pain killers. On September 30, 1996, when he was taking a cocktail of Valium, Percocet, and Demerol, all very highly addictive narcotics—eighty to ninety pills a day—he was caught. He spent hours with federal DEA agents, convincing them that he was taking them all, every last one of them and not selling them, as they suspected, given the high number of prescriptions. His story of overcoming extreme obstacles speaks to anyone who loves competition, who has survived catastrophe, or who has pursued a seemingly impossible goal.

Carl Van is one of the most highly sought-after keynote speakers and presenters at conferences in the U.S. and Canada. He has dedicated his life to studying the claims organization and developing classes and programs to improve the success of individuals working in the industry. But Van's extensive knowledge extends far beyond the insurance industry. His commitment to improving both the employee and customer experience has made him a leading expert on topics such as company morale, time management, business communication, and customer service—important and timely no matter the industry. Though his topics are serious, he keeps audiences interested and entertained using

(Continued on page 9)

19th ANNUAL WC EDUCATION CONFERENCE

(Continued from page 8)

audience participation, real-life examples, and the right amount of humor.

The conference is sponsored by the Tennessee Bureau of Workers' Compensation in association with the International Workers' Compensation Foundation, a non-profit corporation dedicated to workers' compensation research and education. The goal of this conference is to educate those who participate in the Tennessee workers' compensation system regarding current and pending rules, procedures, policies and forms and to provide an opportunity for dialogue among these participants.

The conference will include an exhibit hall with various service providers, as well as opportunities to meet senior Bureau staff and other Tennessee workers' compensation professionals. Application will be made for continuing education credit for attorneys, rehabilitation providers, and human resources professionals, and a certificate of completion will be provided for other disciplines.

People interested in learning about the conference may go to www.iwcf.us. For more information, please contact Jeff Francis, Assistant Administrator of the Tennessee Bureau of Workers' Compensation, at b.jeff.francis@tn.gov or 615-253-6269.



Tuesday, June 21, 2016, Keynote Speaker
Mr. Dick Beardsley



Wednesday, June 22, 2016, Keynote Speaker
Mr. Carl Van

The Tennessee Bureau of Workers' Compensation is an equal opportunity employer;
auxiliary aids and services are available upon request.

MIRR PHYSICIAN SPOTLIGHT BRYAN D. CHASTAIN, MD

(Continued from page 2)

church camp. At the age of seventeen, while working at this camp, Dr. Chastain met his future wife, Theresa.

“Several years ago,” says Dr. Chastain, “Theresa found and purchased, without my knowledge, a 1969 Model-90 Powermatic wood lathe. This is a 700# lathe made right here in McMinnville. She also arranged for me to have a private lesson with Nick Cook, a world renowned wood turner. Since then I have spent countless hours turning. Most of my efforts result in firewood, but there have been a few that have turned out well.”

Dr. Chastain married Theresa while in college, and now, thirty-seven years later, have five children ranging in age from twelve to thirty-one. Two children are



Dr. Bryan Chastain and Mrs. Theresa Chastain

nurses, one in the emergency department at Vanderbilt Hospital, the other in the intensive care unit in McMinnville. One child is “doing very well” as a waitress in Nashville, and the other is seeking employment in Nashville after having recently graduated from the University of Tennessee.

The Chastains have traveled on many medical missions to Costa Rica, Honduras, and Haiti. “In August of 2010,” as Dr. Chastain relates, “after the earthquake, we met a six-year-old Haitian girl and eventually—four years and many trips later—adopted her. She has been with us for two years and is currently planning her first trip back to Haiti this June.”

As a family, the Chastains enjoy hiking and camping. They started tent camping several years ago and “love [their] time in the Smokies, Tellico, and other local parks.” They just purchased and are currently restoring a 1957 Airstream “Flying Cloud,” a



“The Chastains have traveled on many medical missions to Costa Rica, Honduras, and Haiti.”

(Continued on page 11)

MIRR PHYSICIAN SPOTLIGHT BRYAN D. CHASTAIN, MD

(Continued from page 10)

considerable step up from the 1959 Scotty (a.k.a. “canned ham”) they previously used.

“As I look back over the last 28 years,” Dr. Chastain reflects, “and as I look forward toward the next however many years, I realize that the highlight of my career is today, this day, or whichever day I am living at the moment. I loved delivering babies—those were some fun times. But now I am taking care of babies whose mothers I delivered. I love the diversity of what I do, but also the chance to be a part of people’s lives year after year. Yes, there are challenges: electronic medical records, meaningful use, CLIA, Medicare, and insurance companies to name a few. But for me, the rewards far outweigh any downside. I am blessed by the opportunity to do what I do. May I always do it with passion.”

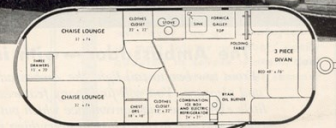
"AIRSTREAM—" — The airplane-type trailer that "flies" behind your car

Writes a retired Navy admiral—
“We take the hills at half throttle, and sail on the straight-aways at the legal limit with the throttle barely cracked.”

Lighter, Safer, Longer Lasting—with more Travel-Living Comfort



THE NEW 21½ FT. FLYING CLOUD



Loaded with features, all aluminum, all riveted, 6 open windows, including the front one, see through vision, 3 vents, 2 chests of drawers (one a highboy), 2 clothes closets, formica topped galley, stainless steel sink, combination electric and ice refrigerator, oil heater, 2 twin beds and one double bed, sleeps 4, hydraulic shock absorbers, Yale locks, about 165 lbs. on the hitch, easily pushed around by hand. Toilet and shower optional at extra cost.

Other Models
Cruiser, 24 ft. with flushing toilet and shower. Liner, 30 ft. tandem for superb travel luxury, Clipper, 18 ft. for vacations. Since 1934 Airstream has catered to world travelers in Europe, Alaska, Canada, U.S.

Central and South America, Hawaii and the Philippines. We welcome custom models requiring special interiors and installations, gasoline generator light and power plants, 6 volt and gas refrigerators, electric and manual pumps, air-conditioners. Free estimates.



Write for free 16-page illustrated booklet with prices and dealer lists.

Wally Byam

AIRSTREAM TRAILERS, Inc.
1755 No. Main St., Los Angeles 31, Calif.
Dealers write direct to the factory



Dr. Bryan D. Chastain and his family.



The Tennessee Department of Labor and Workforce Development is committed to principles of equal opportunity, equal access, and affirmative action. Auxiliary aids and services are available upon request to individuals with disabilities. Tennessee Department of Labor and Workforce Development; Authorization No. 337621, December 2019; This public document was promulgated for electronic use only.

