

## “B” READERS

“Beware the B-Readers”

Wall Street Journal 1/23/06

“B Readers” Radiographic Interpretations in Asbestos Litigation: Is Something Rotten in the Courtroom?

Academic Radiology 2004; 11:841-842

The headline of a recent review and outlook piece in the Wall Street Journal brings to mind frightening headlines a number of years back about the advance north of killer bees. What are “B” Readers and how do the recent headlines in the newspapers or the editorial pages of a radiology journal concern the practice of occupational or pulmonary medicine?

The “B” reader program began in 1974. It is administered by the National Institute for Occupational Safety and Health. The program was set up “to achieve uniformity in assessing pneumoconioses” and to reduce inter and intra reader variability. The certification program was originally developed for physicians interpreting radiographs of coal miners for both epidemiologic studies and compensation. In subsequent years it has been commonly used to interpret radiographs for individuals exposed to other mineral dusts such as asbestos and silica. To achieve standardization, “B” readers interpret radiographs using a standardized recording form first developed by the International Labor Organization in 1949 and most recently revised in June 2002. An individual’s radiograph is interpreted in comparison to standard radiographs sold by the International Labor Organization.

Recording of interstitial changes is based on the location (lower, middle, or upper zone), the size and shape of the opacities (small vs. large, round vs. linear) and profusion (4 major categories and 12 minor categories). Recording of pleural changes is based on location, extent, width, calcified vs. non-calcified, and the presence or absence of costophrenic angle obliteration. There are additional codes for other abnormalities (i.e. atelectasis, cancer, cardiomegaly, etc.)

A “B” reader is a licensed physician (there is no requirement to be a radiologist) who has passed a test consisting of reading 125 radiographs. Since 1984 a “B” reader has to be re-certified every four years by passing a test consisting of reading 50 radiographs. The pass rate is approximately 50%. There are three ways to learn the classification system: 1) NIOSH has a home study syllabus; 2) there is a symposium offered every 2-3 years by the American College of Radiology (The last one was held in March 2004); and 3) sitting with a “B” reader and interpreting radiographs.

The number of “B” readers has been decreasing over the years. Michigan now has nine “B” readers (Table 1) in comparison to 25 “B” readers in the 1990s. NIOSH also has a category of an “A” reader. An “A” reader is a licensed physician who has either submitted six radiographs with interpretations to NIOSH and a panel of “B” readers agrees with the interpretations of the six x-rays, 2) completed one of the American College of Radiology’s Symposium on the Classification of Radiology

for the Pneumoconiosis or 3) previously has been a “B” reader who did not re-certify.

The controversy over “B” readers does not derive from the certification program which is in fact fairly rigorous, including a certification exam, a re-certification exam every four years and a high fail rate. The controversy revolves on how “B” reading is being used.

In the 1980s a court decision in a case brought by companies who were defendants in asbestos liability suits broadened the liability of the insurance companies who had written policies for the asbestos companies. This had the effect of encouraging asbestos companies not to contest cases and pass these liabilities on to their insurance companies. This in turn led to some plaintiff attorneys conducting mass screening of workers who had potential exposure to asbestos. A limited number of “B” readers participated in these mass screenings. A diagnosis of asbestosis based on this B-reading by a single physician was then used to justify a claim for compensation. Even though it had never been the intent of the B-reader program that a positive “B” reader interpretation of a radiograph was sufficient on its own to establish a clinical

diagnosis of pneumoconiosis this is how the interpretations came to be used in the asbestos litigation. The defendant asbestos companies did not challenge the interpretations until litigation by individuals diagnosed with silicosis markedly increased. In 2002, 10,642 claims for silicosis were filed in Mississippi courts in comparison to less than 100 per year in previous years. This continued in 2003 and 2004 so that a total of 20,479 new silicosis claims were filed in Mississippi over these three years. One of the defendant companies matched the names of the individuals with silicosis and found there was a great deal of overlap with individuals who had previously been compensated for asbestosis and that the “B” readers who had interpreted the radiographs for silicosis had previously concluded these same individuals had asbestosis.

In response to these concerns about the “B” reading interpretations being used in the courtroom, defense attorneys sponsored a study that was published in 2004 in Academic Radiology. The study consisted of 492 radiographs that had been interpreted by 30 “B” readers” and had been submitted to justify asbestosis by plaintiffs’ lawyers. These films were reread by seven different “B” readers

**Table 1. Current “B” Readers in Michigan**

Name	Department	Street	City	Zip	Phone
Gordon Herman Beute	Henry Ford Hospital	6411 Wardell Ct	West Bloomfield	48324	(248) 360-2754
Alfred Franzblau	University of Michigan	1420 Washington Heights	Ann Arbor	48109-2029	(734) 936-0758
Ella Annabelle Kazerooni	University of Michigan	1500 E Medical Center Dr	Ann Arbor	48109-0326	(734) 936-4366
Paul Arthur Kvale		30134 Jefferson Ave	St Clair Shores	48082	(586) 294-9086
Mark Robert Ludka	Covenant Healthcare	760 Timberwood La	Saginaw	48609	(989) 781-2152
David Lawrence Osher		30270 Oakleaf	Franklin	48025	(248) 855-2733
Jay L Pearlberg	Henry Ford Hospital	28090 Taristock Tr	Southfield	48034	(248) 356-0931
Kenneth D Rosenman	Michigan State University	117 West Fee	East Lansing	48824	(517) 353-1846
Joseph E Talbot	Adv Diagnostic Imaging	3037 Silverwood	Saginaw	48603	(989) 799-5699

---

selected for the study. The paper concluded “that the variability between the initial “B” readers and “B” readers used in the study was too great to ascribe to observer inter reader variability and that there was no support for the high level of positive findings by the initial “B readers.” Three letters critical of the methodology were published. The authors of all three letters had Michigan ties; we at Michigan State University authored a letter, researchers from the University of Michigan authored another, and a private practitioner in the state was one of three authors in the 3<sup>rd</sup> letter. The paper’s methodology was criticized including how these 492 radiographs were selected from among 1000s available for review, how the second set of “B” readers were selected, and how the statistical analysis was performed. Finally the paper was criticized for over-interpreting their findings to conclude that the results of the re-readings were more consistent with the true prevalence of asbestos disease reported in the medical literature than the initial readings. One could not conclude from the results whether the initial reading or the re-reading was more accurate. There was sufficient variation in the re-readings by the seven “B” readers who each read all 492 radiographs that some of the interpretations of the re-readers overlapped with the initial readings.

This paper despite its methodological shortcomings and a subsequent legal ruling by a federal district court in Texas that the testimony of six physicians (five of whom are “B” readers) could not be used in legal proceedings about silicosis cases are the two recent developments that raised enough concern about the “B” reader system that the Wall Street Journal article concluded that “if NIOSH isn’t willing to audit, perhaps it should abolish the B-reader program altogether.” This opinion in the Wall Street Journal totally missed the usefulness of the system to standardize the interpretations of radiographs for pneumoconiosis, particularly if a single film is interpreted by multiple readers. In response to these developments NIOSH has issued new guidelines reemphasizing how the classification system for pneumoconiosis should be used as one, but not the sole component in

medical diagnosis, research, population surveillance, worker health monitoring, government program eligibility, and compensation settings. The problem is not with the certification system but rather how a single “B” reading without other supporting medical information has been used in an adversarial legal setting without review by the opposing side.

The references for the study described above and the letters to the editor critiquing the study follow. Also three web addresses about the “B” reader program are listed.

Gitlin JN, Cook LL, Linton OW, Garrett-Mayer E. Comparison of “B” Readers Interpretations of Chest Radiographs for Asbestos Related Changes. *Academic Radiology* 2004; 11:841-842.

Letters to the Editor:

Rosenman KD. *Academic Radiology* 2004; 11:1396-1397.

Oliver LC, Welch LS, Harbut MRT. *Academic Radiology* 2004; 11:1397-1399.

Franzblau A, Gillespie B. *Academic Radiology* 2004; 11:1400-1402.

Recommendations of how “B” reading interpretations should be used:

<http://www.cdc.gov/niosh/topics/chestradiography/recommendations.html>

“B” reader program information for physicians:

<http://www.cdc.gov/niosh/topics/chestradiography/breader-info.html>

List of certified “B” readers:

<http://www.cdc.gov/niosh/topics/chestradiography/breader-list.html>

\*Project  
S.E.N.S.O.R.

# News

Michigan State University  
College of Human Medicine  
117 West Fee Hall  
East Lansing, MI 48824-1316  
Phone (517) 353-1846

Address service requested.

In this issue:  
"B" Readers

\*PS Remember to report all cases of occupational disease!

Printed on recycled paper.

**Michigan Law Requires the Reporting of Known or Suspected Occupational Diseases**  
Reporting can be done by:  
**Web** www.oem.msu.edu  
**E-Mail** ODRREPORT@ht.msu.edu  
**FAX** (517) 432-3606  
**Telephone** 1-800-446-7805  
**Mail** Michigan Occupational Safety & Health Administration (MIOSHA) Management and Technical Services Division P.O. Box 30649 Lansing, MI 48909-8149  
Reporting forms can be obtained by calling (517) 322-1817  
Or 1-800-446-7805

**Project SENSOR Staff**  
*At the Michigan Occupational Safety & Health Administration (MIOSHA)*  
Douglas J. Kalinowski, C.I.H., M.S., Director  
MI Occ Safety & Hlth Admin (MIOSHA)  
Project SENSOR, Co-Director  
John Peck, M.S., Director  
Management and Technical Services Division  
Byron Panasuk, C.I.H., C.S.P.  
Project SENSOR Specialist  
*At Michigan State University—College of Human Medicine*  
Kenneth D. Rosenman, M.D., Professor of Medicine  
Project SENSOR, Co-Director  
Mary Jo Reilly, M.S., Project SENSOR Coordinator  
Amy Sims, B.S., Project SENSOR NIHL Coordinator  
Project SENSOR Office Staff:  
Tracy Carey  
Ruth VanderWaal  
Patient Interviewers:  
Linda Assaf  
Amy Krizek  
Lisa McElroy  
Carlina Menjivar  
Erin Frankowicz  
Francisco Terrazas

**Advisory Board**  
John J. Bernick, M.D., Ph.D., Representative, Michigan Occupational Medical Association  
James Blessman, M.D., M.P.H., Wayne State University  
Kevin M. Chan, M.D., President, Michigan Thoracic Society  
Michael Harbut, M.D., M.P.H., Center for Occ. and Env. Medicine  
AFL-CIO, Medical Advisor  
Gary Reinheimer, M.D., President, Michigan Allergy and Asthma Society  
Thomas G. Robins, M.D., M.P.H., University of Michigan School of Public Health  
Division of Occupational Medicine  
East Lansing, MI 48824-1316  
MSU-CHM  
117 West Fee Hall  
(517) 353-1846  
The Project SENSOR News is published quarterly by Michigan State University-College of Human Medicine with funding from the National Institute for Occupational Safety and Health and is available at no cost. Suggestions and comments are welcome.