

Documentation of rectal examination performance in the clinical teaching unit of a university hospital

Hugh James Freeman MD

HJ Freeman. Documentation of rectal examination performance in the clinical teaching unit of a university hospital. *Can J Gastroenterol* 2000;14(4):272-276. Digital rectal examination is used to evaluate the distal rectum and other organs, including the prostate gland. It may be combined with fecal screening for occult blood loss, and annual performance has been recommended for asymptomatic individuals over age 40 years for cancer screening. In this study, documentation of digital rectal examinations was assessed through a review of hospital medical records of a randomly selected group of 100 patient discharges (55 females and 45 males) from a total of 896 patients admitted through a hospital emergency room to a medical clinical teaching inpatient unit of a university hospital during a six-month period. In this group, 26% were admitted for a gastrointestinal disorder, but only 17% of all hospitalized patients had rectal examinations done by the medical resident house staff and/or attending medical staff directly responsible for the care of these patients. Occult blood testing was done in 15 patients. Pelvic and breast examinations were rarely documented. The majority of rectal examinations (ie, 13 of 17) were 'same sex' examinations, appeared to be used largely for testing or confirmation of grossly visible blood loss and were never confirmed by attending staff. The presence or absence of nursing staff during examinations was not documented. The prostate examination was normal in one patient but not documented in the other 44 males (ie, 26 patients over age 60 years). In conclusion, rectal examinations (as well as breast and pelvic examinations) were rarely documented in the medical teaching unit by medical resident house staff or their attending staff.

Key Words: Colon; Colon cancer; Occult blood testing; Prostate cancer; Rectum

Notes relatives au toucher rectal dans une unité d'enseignement clinique d'un centre hospitalier universitaire

RÉSUMÉ : Le toucher rectal permet d'évaluer le rectum distal et d'autres organes, dont la prostate. Il peut être associé à un examen des selles à la recherche de sang occulte, et il est recommandé de le pratiquer une fois par année chez les personnes de plus de 40 ans qui ne présentent pas de symptômes comme mesure de dépistage du cancer. Dans la présente étude, on a évalué les notes relatives au toucher rectal en passant en revue le dossier médical d'un groupe de 100 patients choisis au hasard (55 femmes et 45 hommes) sur un total de 896, qui se sont présentés à l'urgence et qui ont été admis dans une unité d'enseignement clinique d'un centre hospitalier universitaire sur une période de six mois. Dans ce groupe de patients, 26 % ont été admis pour troubles gastro-intestinaux, mais seulement 17 % de tous les patients hospitalisés ont subi un toucher rectal effectué par le résident ou le médecin traitant. Un examen des selles à la recherche de sang occulte a été fait chez 15 patients. L'examen pelvien et l'examen des seins étaient rarement notés. La plupart des touchers rectaux (13 sur 17) ont été effectués par des personnes de même sexe, ils semblent avoir été effectués pour vérifier ou confirmer la présence de pertes sanguines nettement visibles et ils n'ont jamais été confirmés par les médecins traitants. La présence ou l'absence de personnel infirmier durant l'examen n'était pas notée. L'examen de la prostate s'est avéré normal dans un cas, mais non noté dans les 44 autres cas (26 patients de plus de 60 ans). En conclusion, le toucher rectal, de même que l'examen pelvien et l'examen des seins, était rarement noté par les résidents ou les médecins traitants à l'unité d'enseignement clinique.

Department of Medicine (Gastroenterology), University of British Columbia, Vancouver, British Columbia

Correspondence and reprints: Dr Hugh Freeman, ACU F-137, University Hospital, 2211 Wesbrook Mall, Vancouver, British Columbia

V6T 1W5. Telephone 604-822-7216, fax 604-822-7236

Received for publication January 15, 1999. Accepted November 22, 1999

Periodic rectal examinations in asymptomatic persons have been widely recommended by the American Cancer Society and the National Cancer Institute (United States) for cancer screening (1-4). Specific guidelines have included an annual digital rectal examination for men or women over age 40 years as well as an annual fecal occult blood test for those over age 50 years. It is believed that this part of the physical examination may result in earlier detection and more effective therapy for prostate cancer as well as polyps and cancer of the distal rectum (5,6). Fecal occult blood testing, done under specific conditions, has also been reported to be a useful screening tool in the detection of colorectal cancer, with a resultant reduction in mortality (7,8).

In recent years, some hospital institutions have insisted that every history and physical examination on a patient admitted to hospital include a rectal examination, but a recent study from a teaching centre in Pittsburg revealed that 56% of all admissions did not document a digital rectal examination (9). Because results from the Pittsburg study were from all teaching services, both medical and nonmedical, the present investigation evaluated the performance frequency and description of rectal examinations by resident house staff physicians and attending medical staff physicians on patients admitted to the medical clinical teaching unit of a university hospital.

PATIENTS AND METHODS

The medical records of 100 patients discharged from a medical teaching unit were retrospectively reviewed. Charts were independently selected from a total of 896 patient discharges during a six-month period, from October 1, 1996 to March 31, 1997, inclusive, by a medical records technician. No more than 20 patients from each calendar month were used. The physician chart reviewer had no knowledge of the patient before the chart review, and the medical records technician had no knowledge of the objectives of the review. All patients, except for one (transferred from a hospital in the United States), were admitted through the hospital emergency room to the medical clinical teaching unit. The structure of this unit includes staffing by medical house staff (senior year medical students and medical residents at increasing levels of seniority), while the final physician responsibility for the patient's hospital care was assumed by one of 12 different attending staff (10 males and two females) with certification from the Royal College of Physicians and Surgeons of Canada in Internal Medicine. Two of the 12 attending staff were responsible for all medical patients on a two-month rotation basis at any one time. All emergent medical problems were referred by an emergency room physician to this medical clinical teaching unit because there were no designated subspecialty medical beds in the hospital, except for a small number devoted to the investigation and treatment of chronic or degenerative neurological disorders. After complete evaluation by the medical resident in the emergency room, patients were admitted for ongoing care to the medical clinical teaching unit. Consultation services were available to this medical teaching unit

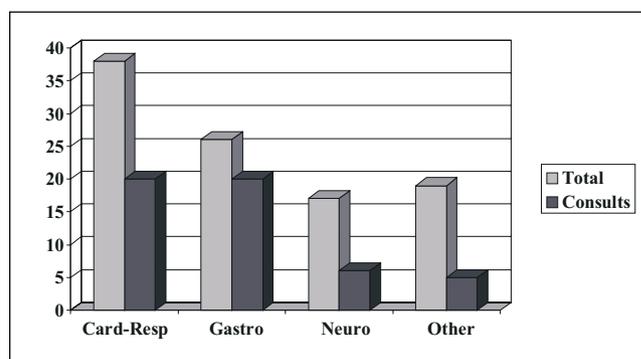


Figure 1) Distribution of subspecialty system and consultation rate for 100 patients in a medical clinical teaching unit. The left column represents the total number of patients in the system category, while the right column represents the number of specialist consultations. Card-Resp Cardio-respiratory disorders; Gastro Gastrointestinal, hepatobiliary tract and pancreatic disorders; Neuro Neurological disorders; Other Other disorders

through subspecialty services from the teaching faculty, including all medical, surgical and psychiatric subspecialties.

RESULTS

Patient characteristics: Fifty-five females and 45 males, ranging in age from 18 to 95 years, were studied. All patients required admission for an emergent medical problem; 99 patients were admitted through the hospital emergency room after evaluation by an emergency room physician and later referral to the medical resident for the general medical teaching unit. One patient with an emergent medical problem was transferred from an Oregon hospital and entered the hospital through the emergency room. Figure 1 shows the distribution of patients classified into different subspecialty groups. These included cardiorespiratory disorders, gastrointestinal disorders and neurological disorders. Other conditions that required admission included a variety of medical disorders, such as diabetic ketoacidosis, renal failure, fever of unknown cause and systemic lupus erythematosus. Although cardiorespiratory disorders accounted for most admissions to this medical teaching unit, 26% were admitted for a gastrointestinal, hepatobiliary tract or pancreatic disorder. These admissions included patients with gastrointestinal bleeding, complex inflammatory bowel disease, abdominal pain due to biliary tract lithiasis and pancreatitis, and complicated, usually chronic, liver disease.

Overall, the consultation rate to subspecialty services for these 100 patients was 43%. For some of these 43 patients, consultant physicians from more than one medical subspecialty evaluated the medical problems. In addition, seven patients were referred to other nonmedical services, including surgery, urology, orthopedics and psychiatry. Figure 1 also shows the consultation rates for the different subspecialty groups. Almost 80% of all patients admitted with a gastrointestinal disorder had consultations. Although the reasons for gastrointestinal consultations were not specifically evaluated in this study, it appeared that the majority of consultation requests to the gastrointestinal service were for performance of

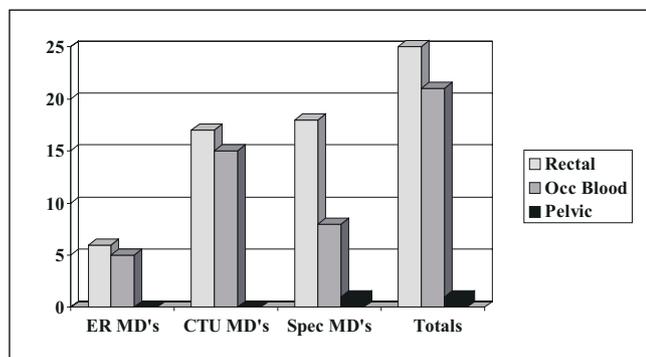


Figure 2 Distribution of rectal examinations, occult blood (Occ Blood) testing and pelvic examinations for emergency room physicians (ER MD's), medical resident and attending staff physicians in the medical clinical teaching unit (CTU MD's) and subspecialty physician consultants (Spec MD's)

investigative procedures (eg, upper gastrointestinal endoscopy, colonoscopy) or to initiate nutritional support, specifically, total parenteral nutrition.

Of the 100 patients evaluated, 95 were discharged from hospital or sent to a chronic care facility. Five patients died, including two due to a cerebrovascular accident, one due to renal failure, one due to a pulmonary embolism and one due to a lung carcinoma. One of these five patients had an autopsy performed.

Rectal examination performance: Figure 2 shows the documentation of rectal examinations, occult blood testing and pelvic examinations in the 100 patients evaluated. A total of 25 patients had a rectal examination documented in the hospital medical record during their hospital admission; of these, 21 had an occult blood test performed or had frank blood detected. The precise method of testing for occult blood was never recorded. The frequency of rectal examination performance was also compared in this group of 100 patients with the frequency of breast and pelvic examinations. One female had a pelvic examination documented; this was done by a surgical resident. No patient in the medical clinical teaching unit had a breast examination documented by a medical student or any physician in the hospital medical record.

Performance of rectal examinations by the resident medical staff was limited to 17 patients; of these, 15 also had an occult blood test performed or had frank blood detected. None of the 12 general internists who directed the care of the patients during their hospital admission documented performance of a rectal examination. In most instances, a rectal examination was performed only in patients with findings that implicated a gastrointestinal cause for the admission of the patient to hospital. Of 17 patients who had digital rectal examinations performed by medical resident house staff, six had already undergone a rectal examination by an emergency room physician and five of these had a fecal occult blood test performed. Except for one patient who had a rectal examination performed by a urologist and one other patient who had a rectal and pelvic examination performed

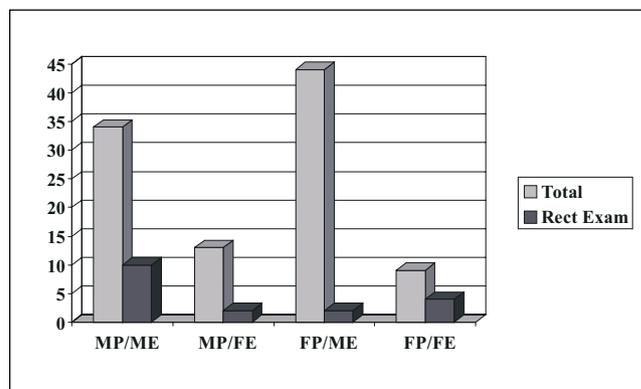


Figure 3 Distribution of examinations based on sex of the patient and the physician examiner. FE Female examiner; FP Female patient; ME Male examiner; MP Male patient; Rect Exam Rectal examination

by a surgical resident, rectal examinations performed by subspecialty consulting physicians were done only by one of six different consultant gastroenterologists who also functioned on a service rotational schedule. Of 20 referrals to the gastrointestinal service, 16 had rectal examinations but four patients had no rectal examination. These included two patients with severe chronic liver disease reviewed by gastroenterologists for a specialized liver transplant service, one patient with an actively bleeding duodenal ulcer and one patient with gallstone-associated pancreatitis. Of the six patients with a gastrointestinal disorder who required admission to the hospital but without a referral to the gastrointestinal service, none had a rectal examination performed by the medical resident or attending staff in the medical clinical teaching unit. Of the 16 rectal examinations done by gastroenterologists, eight also had occult blood tests performed.

Rectal examination descriptions: Rectal examinations were recorded by the medical resident house staff as 'negative', 'zero' or 'clear' in three charts, 'occult blood negative' in four, 'occult blood positive' in five and 'frankly bloody stool' in two. Two charts recorded 'no masses', with either 'occult blood negative' or 'occult blood positive', while one chart recorded 'occult blood negative and prostate normal'. Indeed, the word 'prostate' appeared only once in the record of the physical examination for all 45 male patients, and 26 of these 45 male patients were over age 60 years.

Patient and examiner sex: Figure 3 relates the number of male or female patients with either male or female medical resident examiners to the performance frequency of rectal examinations. Ten of 34 male patients examined by a male physician had a rectal examination (ie, 29.4%), while only two of 13 male patients examined by a female physician had a rectal examination (ie, 15.4%). Four of nine female patients examined by a female physician had a rectal examination (ie, 44.4%), while only two of 44 female patients examined by a male physician had a rectal examination (ie, 4.5%). These differences were statistically significant ($P < 0.05$).

Nurse documentation: No physician documented the presence of another medical or nursing staff member during the patient's physical examination, and in particular rectal examinations, either for same or opposite patient sex. No nursing staff member documented their presence in the nursing record during rectal examinations done by physicians.

DISCUSSION

Over 80% of patients admitted to the medical clinical teaching unit in a university hospital had no documentation of performance of a rectal examination by the medical resident physician or the attending staff directing the care of the patient, while breast and pelvic examinations appeared to be even more rarely done. These results are consistent with previous observations at a Pittsburgh teaching hospital that documented the failure to perform rectal examinations in 56% of patients requiring hospital admission (1). In the present evaluation, however, the observations were even more striking because the patients were admitted to a general medical service in a university teaching hospital that excluded hospitalized patients from other services, such as psychiatry. Although it is conceivable that the performance of rectal examinations in general medical services may be higher at other teaching hospital sites for this university department, this is probably quite representative of all of the medical teaching units. The medical resident staff rotate through these teaching units at other hospital sites, and some of the attending staff also perform identical functions at the other teaching hospital sites.

This study also demonstrated that rectal examinations documented by medical residents appear to be largely focused on the detection of blood loss rather than a true 'physical examination' of the rectum, anus or prostate gland. Moreover, the absence of rectal examinations by attending staff physicians indicates that the results of these rectal examinations done by medical residents were not confirmed by attending staff physicians, even in patients who were admitted with a primary gastrointestinal disorder. Instead, most rectal examinations for patients with gastrointestinal disorders appear to be almost entirely dependent on subspecialty consultation from the gastrointestinal service or a surgical service. Similarly, there was a failure to document a clinical evaluation of the prostate gland in 44 of 45 males in this study, including 26 patients over the age of 60 years. Many United States hospitals now insist that a complete general medical examination document a rectal, breast and pelvic examination in patients who require hospital admission. The data indicate that complete examinations were not performed in a clinical teaching setting on a general medical ward and confirm the observations previously noted in a Pittsburgh hospital for both medical and nonmedical services.

The precise reasons for the limited number of rectal examinations documented in the present study group are not clear. While limited supervision by attending staff may be partly responsible, the data also appear to suggest that medical resident physicians may experience significant discomfort with opposite sex examinations, or, possibly, for

medicolegal reasons, these examinations are being avoided. Compared with male physicians, female physicians performed rectal examinations on males about 50% less than did male physicians. This difference was even more dramatic for female patients. Female physicians performed rectal examinations in about 45% of the female patients, whereas male physicians performed rectal examinations in less than 5% of the female patients admitted. Breast and pelvic examinations were even more rarely documented (this lack of documentation was equal in male and female resident physicians). The reasons for these apparent 'sex-based' differences in examination rates require further elucidation. It has been recently recommended by the local provincial licensing body, the British Columbia College of Physicians and Surgeons and the Canadian Medical Protective Association that a member of the nursing staff be present for such inpatient examinations, largely for physician protection, especially for male physicians who are performing female examinations. In this study, no documentation was evident in the chart record that a member of the nursing staff was present and, conversely, no nursing record documented their presence during the physician examination. Instead, it appears that female patients are most likely to be incompletely examined in a teaching hospital setting if initially seen on a medical ward by a male resident physician. Because there are apparently increasing numbers of complaints, particularly toward male physicians with respect to sexual harassment, a fear of potential consequences, including litigation, may have been partially responsible for the results observed. If so, a greater documentation of nursing staff presence would be expected, but this did not occur. Alternatively, some physicians, anticipating that a subsequent referral to a gastrointestinal subspecialist or a surgeon will result, may feel that an additional examination may be superfluous. If so, patients not referred for subspecialty consultation with a gastrointestinal disorder would be expected to have had a rectal examination. This did not occur.

The results of this performance evaluation of a general medical teaching unit seem surprising given that the cancer screening guidelines for many national organizations, such as the American Cancer Society, recommend annual digital rectal examinations for patients over the age of 40 years. In part, this recommendation has been made because of the belief that digital rectal examination is one of the best methods to screen for prostate cancer. Additional studies are needed to clarify the limited documentation of this portion of the clinical examination in patients admitted to teaching hospitals and the reasons for the apparent reluctance of medical residents and general internist attending staff to perform rectal examinations.

REFERENCES

1. ACS Guidelines. New York: American Cancer Society, 1986.
2. Mettlin C, Jones G, Averette H, et al. Defining and updating the American Cancer Society guidelines for the cancer-related checkup: prostate and endometrial cancers. *CA Cancer J Clin* 1993;43:42-6.
3. Levin B, Murphy GP. Revision in American Cancer Society recommendations for the early detection of colorectal cancer. *CA Cancer J Clin* 1992;42:296-9.

4. Working Guidelines for Early Cancer Detection: Rationale and Supporting Evidence to Decrease Mortality. Bethesda: National Cancer Institute, 1987.
 5. Friedman GD, Hiatt RH, Quesenberry CP Jr, et al. Case-control study of screening for prostatic cancer by digital rectal examinations. *Lancet* 1991;337:1526-9.
 6. Cher ML, Carroll PR. Screening for prostate cancer. *West J Med* 1995;162:235-42.
 7. Selby JV, Friedman GD, Quesenberry CP Jr, et al. Effect of fecal occult blood testing on mortality from colorectal cancer: a case-control study. *Ann Intern Med* 1993;118:1-6.
 8. Winawer SJ, Fletcher RH, Miller L. Colorectal cancer screening: clinical guidelines and rationale. 1997;12:594-642.
 9. Leff DB, Azzouz M, Molloy PJ, Kania RJ. Attitudes toward vs performance of rectal exams. *Gastroenterology* 1997;112:A25. (Abst)
-
-



Hindawi
Submit your manuscripts at
<http://www.hindawi.com>

