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The Peer Review Process

Many physicians spend a great deal of time reviewing manuscripts sent to them by the Journal editor, and also responding to the reviewer’s criticisms of their own papers. The editor and guest editors of our special issues also spend countless hours, indeed days, fine tuning the process of manuscript peer review.

As Drummond Rennie MD, Deputy Editor (West) of JAMA, noted, peer review educates everyone concerned and is comforting to editors and to the scientific community, who believe that it tends to make what seems to be an arbitrary process more democratic.1

The AMA sponsored two congresses on peer review in biomedical publications in 1989 and 1993. “Peering into Peer Review” summarized the conferences attended by editors and authors. Opponents attacked peer review for its secretiveness—the obliteration of names, titles and institutions of reviewers. Some also said the process invited abuse by ignorant, unfair, or malicious reviewers who could steal ideas and words, who may break confidentiality, and who might deliberately delay publication. Even critical peer review cannot guarantee the absolute correctness, authority, or eventual importance of any manuscript.

Proponents, and the majority of those who attended both congresses, were strongly in favor of continued and more critical peer review. Research presented at the 1993 congress emphasized that authors, readers, and peer reviewers could benefit from spending more time and energy learning how to review articles critically and objectively.2

JAMA had 2,927 peer reviewers in 1992.3 It required five full pages in the Annals of Internal Medicine to list the almost 2,000 peer reviewers in 1993.4 Fortunately for the editor of the Journal and our staff, we are not in the same league as JAMA and Annals, nor would we ever aspire to be.

But thanks to our 157 peer reviewers—authorities in every branch of medicine from adolescent medicine to workers’ compensation and family practice, we have attempted to be fair, honest, and expeditious in our evaluation and publication of all manuscripts.

My sincere thanks to our peer review panel.

References

If you have the HMJ November 1995 issue that you aren’t using, we would love to have them! Please bring them to the HMA reception desk.

Thank you.
Medicare and Medicaid are entitlement programs that are of great concern to congressional leaders. In both programs, the numbers of beneficiaries and benefits are outstripping the money budgeted, with the grave possibility they will be bankrupt in a few years.

One significant problem that will affect the Medicare program is the projected marked increase of beneficiaries—the baby boomers—the 76 million persons who were born between 1946 and 1964. These individuals are just turning 50, and they will markedly affect the Medicare program in the next 15 to 35 years. The life expectancy of men is now 81 and women 85. Most likely the baby boomers born in 1960 will not received Social Security benefits until they’re 67 years old. Today 33.4 million Americans are 65 years and older compared to the projected 59.4 million who will be 65 in 2030. Today those who are over 85 is about 3.5 million compared to the projected 5.8 million who will be 85 in 2035.

The boomers will be the first long-lived generation, the first to really get a taste of mass longevity. Boomers increasingly are splitting into two groups: the have and have nots, with a high school diploma or less. About three-fourths of boomers are in the labor force and will more than likely have their own pensions, as compared to their stay-at-home mothers. Unfortunately, the have nots, who will head toward retirement with low-wage jobs, low pension, little or no health coverage, and minimal financial security by way of savings and home equity, will experience a gloomier picture. Today four workers support one Medicare patient, and by 2030 this ratio will be two to one.

If the Medicare program is to be preserved, a marked change in addressing Medicare issues must occur.

I agree with Dr Richard R. Kelley who recently wrote that during the past decade the power to make decisions about the delivery of health care has become more and more concentrated in the hands of bureaucrats and corporate executives who have become the customer and consumers seeking health care are told which doctors they can see, what services they can have, and when they can leave a hospital. Citizens should be allowed to receive health care funds tax free. Medicare and general health care reform should include this provision which would allow both employees and retirees to set up tax-free health care savings funds and buy health care insurance and/or health care directly from providers. The marketplace will rule as smart consumers seek the best services. The reverse is happening now. Government bureaucrats and corporate accountants select health care providers, dictate fees, services, and availability. Health maintenance organizations are slashing fees paid to doctors, and hospitals are refusing to do business with those who will not abide by the reduced payment schedules and reduced services offered to patients.

In order to control the appropriate use of Medicare benefits, the system must reward those who do not waste or demand overuse of the system.

The use of medical savings accounts for Medicare recipients is one suggested option. All appropriate and necessary care would be provided and futile activities would be eliminated. Management costs must be minimized, thereby allowing maximal funds for patient care.

**Medical School Hotline**

**HMA President’s Message**

*Carl W. Lehman MD*

The role of the speech-language pathologist and audiologist in medicine is evolving at a pace comparable to that of the health care system in general. The professions are responding to internal and external demands for increased efficiency and effectiveness. Over the past few decades, speech-language pathologists and audiologists have grown from peripheral contributors of health care to the principal source of diagnostic, evaluation, and (re)habilitation services for speech-language-hearing-related disabilities.

Historically, speech-language pathologists and audiologists have enjoyed at least three roles in health care delivery:

- Early audiologists and speech-language pathologists served as allied health practitioners, generally in hospitals or office practices, working under general medical supervision, sometimes by prescription. This role is diminishing rapidly.
- Speech-language pathologists and audiologists became established as the primary experts in issues specific to speech-language-hearing disorders and their nonmedical diagnoses, evaluation, and treatment. They became the referral resource for diagnosis, management, and treatment of speech-language disorders (speech-language pathologists) and for the diagnosis, evaluation, and treatment of hearing disorders (audiologists).

The evolution has been driven by advances in medicine in general, the qualitative improvement of services provided by speech-language pathologists and audiologists, and vastly increased consumer awareness and demand.

Advances in medicine and health care have resulted in more medical survivors including:

- Greatly reduced infant mortality with an unfortunate side effect of increasing the numbers of children requiring intervention for speech-language-hearing disorders.
- Higher survival rates in accident and injury with residual speech-language-hearing and balance disturbances.
- Increased realization of full life expectancy in the country in general and Hawaii in specific along with the maturation of the baby boomers. The extended longevity in our population has vastly increased the demand for services to the geriatric population.

Infants and children may evidence delayed development of speech and language, stuttering and, less frequently, voice disorders. Middle ear disorders are common in the early years and have significant impact on language development. The incidence of hearing loss due to nerve damage in children and teenagers is increasing after two decades of decline. Ninety percent of children diagnosed with learning disabilities have language disorders.

Adults and young adults with speech-language-hearing disorders are at risk of social, emotional, intellectual, and economic impairment in an expanding technology-driven world. Adequate language and communication ability are a necessity.

Adult-acquired speech-language disorders range from voice disorders from vocal abuse or irritants to speech-language deficits...
related to hearing loss and partial or complete loss of expressive and/or receptive language in stroke or traumatic brain injury. Tens of millions of adults have disorders of hearing and the losses tend to be progressive with age.

In the geriatric population, language and hearing disorders predominate with severity often related directly to general health, social and intellectual function, and independence.

The program in speech pathology and audiology at the John A. Burns School of Medicine is an active participant in the efforts to adapt the delivery of services in speech-language-hearing to today’s and tomorrow’s health care needs. Part of that effort is to help define and model a system that assures availability, access, and quality of services at the earliest possible moment.

Today we are seeing our roles evolve in support of health care initiatives. Speech-language pathologists and audiologists not only provide independent diagnostic, evaluation, and treatment services, but are becoming consultants in speech-language-hearing. This new role extends the services of the referring party. Speech-language pathologists and audiologists provide the managing physician with diagnostic and evaluative information of value in decision making and preparing treatment plans.

### Military Medicine

**The Evil Empire Revisited**

**Operation Provide Hope VI**

**MAJ Brian Crisp MD**

After the fall of the Soviet Union and its subsequent dissolution, U.S. Vice President Al Gore and Russian Prime Minister Viktor Chernomyrdin met and agreed to specific methods by which the U.S. could aid the struggling new nation. Pursuant to and as part of this agreement, the U.S. Army, Pacific (USARPAC) was asked to deliver excess Army medical materiel (in essence, a now obsolete but never used field hospital) to City Hospital No 2 in Vladivostok, Russia, located on the Sea of Japan. This previously closed city was considered so secret and of such vital military importance that even bona fide Soviet citizens had to apply for a special permit to visit friends or family members residing there.

The mission was comprised of three phases. In the first phase, team members of the ad hoc Medical Logistics Support Team, or MLST, met at Sagami Army Depot in Japan (where the field hospital was stored) for initial planning. Personnel for this phase from Tripler Army Medical Center included staff family physician MAJ Gary Clark and dentist CPT Chris Evanov. They were met by a host of biomedical repairmen, logistical, supply and engineering specialists, and linguists who were drawn from as far away as Pennsylvania and as close as Camp Zama, Japan. Following the initial planning meeting in Japan, the members traveled to Vladivostok where they inspected City Hospital No 2 and made final plans as to what to bring, where to place it, and how it could best be used. While there, they discovered another hospital in need of American help, the Children’s Tuberculosis Hospital. This hospital looks after some of the poorest of Vladivostok’s children; kids who not only have TB, but who are typically from unhappy homes—often riddled with alcoholism, neglect, and abuse. These children usually live in the TB Hospital for up to a year and a half while undergoing treatment, in conditions that would bring tears to most adults—as it did to most of our team. After assessing the two hospitals, the team returned to Japan where much of the equipment that would be sent was located—this completed phase I. Phase II consisted of uncrating, inspecting, testing, and repacking all medical equipment to be shipped to Russia. Sixty-two containers of this medical equipment were then loaded onto a cargo ship and transported to Vostochny, the civilian port about two hours north of Vladivostok.

After the equipment arrived, Phase III began: installation, assembly, and use of the donated supplies. On a team of 33, 11 Tripler personnel went to Russia for this phase, including optometrist CPT Patricia Hill, Dr Evanov, and me. The remainder of the team was logistical, biomedical, engineering, laboratory, x-ray, respiratory, and operating-room specialists. As the only physician on the mission, my job was to act as medical advisor and guide. Additionally, I was assigned the responsibility of medical education; that is, I was in charge of the overall hands-on instruction, written instruction, and videotaping of selected medical equipment. And, I was the medical support for our team members in case of illness or injury.

After an overnight stay in Tokyo, I arrived in Vladivostok via Aeroflot—on an aircraft replete with smelly chairs, bad food, and gum on the carpet that sticks to the bottom of your shoes. This was especially poignant after flying out of Tokyo’s Haneda airport (probably the cleanest airport in the world), and Toyama airport on Japan’s western coast (the second cleanest). Just like the old movies, I was pulled out of a line of passengers when I showed the immigration officers my official American passport and was forced to wait an additional half-hour until I was cleared, ostensibly from Moscow. Old habits die hard.

After getting settled in our home-away-from-home for the next six and a half weeks, I toured the hospital and had a chance to see its operating rooms, intensive care unit, pediatric service, and the various wards. I also viewed the ancillary services, such as x-ray, physical therapy, dentistry, laboratory, and the morgue (a hideous place—right out of your worst childhood nightmares). We quickly went to work locating equipment (one of the hardest jobs), then assembling, checking, rechecking, and finally instructing our Russian counterparts in their use. We also translated instructions into Russian to be attached to the various pieces of equipment. All manner of obstacles were encountered, from the Russian professor who “had 20 years of medical education and could certainly put together a bed” (he put it together backward), to various Russian nurses and doctors hoarding equipment they had absolutely no use for, to oxygen wall flow rates that were inappropriately low for some of our anesthesia equipment and precluded their use. The bigger pieces of equipment, such as x-ray or laboratory pieces, were easily distributed to the appropriate personnel, but it was much more difficult for some of the smaller supplies. What would typically transpire was that one or more of the team members would open a multi-pack, a roughly 6 x 6 x 4-foot container containing a multitude of almost every medical product available. A gaggle of about 8 to 10 Russian nurses and physicians would gather around and claim each piece as it was presented and interpreted by the interpreter. As one might expect, however, some medical items defy translation, eg, how do you say “Kirschner wires” or “cerebella support” in Russian? Many boxes had to be opened by the Russian personnel and visually inspected to determine their appropriate destination. After that, piles of equipment would be loaded onto antiquated gurneys and wheeled, we hope, to the right location.

One way or another, the equipment made its way to the appropriate department and was installed. The Russians were instructed in its use and even starred in the instructional videos. Late nights and working weekends saw to it that all translations were completed.
before our departure—not a simple task considering the technical nature of medical translation. Through it all, the team worked well together, and our Russian hosts were gracious and helpful. Despite the busy schedule, I was able to scrub in on a laparotomy for peritonitis, confer with their intensivist on several of their cases in the ICU, watch respiratory therapy in the pediatric ward (where several kids in a row used the same nebulizer solution, hose, and mouth piece), and in general observe the day-to-day functioning of this trauma hospital. Vladivostok is a poor, increasingly crime-ridden Mafia-infested town, and many of the cases we saw were related to violence from organized crime or from hitherto unknown poverty. It is sad to think that in some ways the medical needs of the population were better met under the old communist system.

As for our team’s health, I was probably overly prepared for calamity, as I didn’t use even a fair amount of the medications I brought with me. This was in part due to the so-called Western conditions at the hotel where we stayed, and in part due to the appropriate caution exercised by the team. Safety was constantly emphasized—an important point as the Russians did many things with few or no safety precautions. Our soldiers were advised to let our host nation assistants perform dangerous or unsafe activities. No evacuations were necessary, but could have been arranged if necessary. There was only one trauma—a hand laceration that did not require stitches, and the most worrisome patient was a soldier with new-onset headaches which ultimately resolved but did require short-term narcotics. None of my patients required host nation medical systems, and none required more than I was able to deliver. Certainly, it could have been much worse.

Overall, the mission was a success. An entire Army field hospital with an estimated value of more than $4 million (last valued in 1970—probably worth about twice that in 1990’s dollars) was transported and integrated into a Russian trauma hospital with only minor problems. News of the mission was broadcast on several local radio and television stations and made headlines in the local Vladivostok newspapers. We had insight into a Russia that, while rejuvenating, seems to be crumbling even faster. The Russian medical staff is trying to hold together a system that is constantly doing its best to fall apart. No supplies, no money, intermittent electricity, low salaries, and a nonexistent infrastructure all make for a system that is precarious at best. We marvel at the courage and dedication of the professionals who do their best for the sick and injured needing their care in such a system. Boy, do we have it good here!
Medical Insurance Claims as a Source of Data for Research: Accuracy of Diagnostic Coding

Robert M. Worth MD, PhD*, Robert E. Mytinger DrPH**

Validation of diagnostic codes in a sample of Hawaii medical insurance claims in 1986 to 1987 revealed 96% accuracy in hospital claims, high enough to supply data for research purposes. In physician claims the accuracy was only 62%. Initiation of two feedback loops to physicians from the insurer in 1989 resulted in a marked improvement of diagnostic coding accuracy by 1992 to 1994.

Introduction

Because of the high cost of generating original data, health service researchers often seek reliable secondary data for their studies. One appealing source of secondary data is claims submitted by hospitals and physicians to health insurance plans. Such claims typically contain encounter-specific information pertaining to procedures and other services provided to patients, to charges for such services, and to primary and secondary diagnoses. These variables, coupled with others descriptive of the patient and provider, form a potentially valuable resource with which to examine many questions pertinent to the delivery of health services. Questions of claims data accuracy have become important locally because of a major claims-based research data base developed to support health services research in Hawaii.

Pretest

During 1987 planning began for establishing a continuing archive of abstracts of medical insurance claims processed by the Hawaii Medical Service Association (HMSA). After receiving the approval of the Hawaii Medical Association, a cooperative effort was begun by HMSA, the Hawaii Department of Health (DOH), the Department of Human Services (DHS), and the U.S. Centers for Disease Control (CDC). The archival file, which is maintained by the DOH, has accrued data weekly from HMSA since late 1989. This data base is rigorously controlled, with access limited to qualified investigators seeking specific data elements for studies of substantial merit. To assure complete confidentiality, it contains no data by which the identity of individual patients or providers can be discerned by the researcher.

Of special concern has been the accuracy of the diagnostic data contained in claims submitted, so a pretest was done to validate the accuracy of the primary diagnostic codes being submitted by hospitals and physicians. This began by identifying medical insurance claims processed at HMSA between July 1986 and June 1987 which contained primary diagnostic codes (ICD9-CM) that matched a CDC-derived list of codes thought to be of surveillance interest. The 169,986 claims thus identified served as a sampling frame for a random sample (stratified by patient age and gender) of 186 claims for validation of the primary diagnostic code. With approval of the Hawaii Medical Association, an explanation of the project and a coding sheet were provided in the fall of 1987 to each hospital and physician’s office that had originally submitted a sampled claim, together with a request for verification of the diagnosis on that hospital or physician claim.

Response to these requests was excellent. Hospital claims (N=47) reflected a very high level of accuracy, with only two hospital claims (4%) revealing coding errors, both typographical (Fig 1). While the blind re-coding of 38% of hospital claims did not reflect precisely the original codes, these represented unprecise codes, due almost exclusively to selection at the time of re-coding of another closely related condition as the primary diagnosis. These unprecise codes appeared to be largely for patients who had been admitted for several interrelated chronic problems. It is important to note that this validation study was performed on claims submitted prior to the mandated use of diagnostic-related group (DRG) hospital coding, which tends to minimize this problem. The remaining 57% of the re-coded hospital claims were identical with the diagnostic code originally submitted to HMSA. Hence, hospital-reported diagnoses appeared to be quite dependable for research purposes, probably reflecting a high level of training of hospital record room staff for diagnostic coding.

Physician-generated claims revealed a different picture, probably because the clerical staff in physician offices or billing service bureaus is less well-trained. Twelve percent of office claims appeared to have single digit typographical errors. Another 8% represented confusion of medical terminology. For example, a patient with multiple myeloma coded on the claim was changed to malignant melanoma on validation. Another class of errors in 17% of the office claims arose from coding a potential infectious disease instead of the exposure to that disease. For example, validation

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A project supported in part by George F. Straub Trust, Hawaii Community Foundation, through the Pacific Health Research Institute; also supported by the HMSA Foundation.
revealed that dog-bite of the hand had originally been coded as rabies (in a rabies-free state!). The selection of another related diagnosis from among several problems in the patient (eg, the unprecise coding category) was present in 19% of the office claims sampled. Thus, only 43% of the physician office claims were validated as having codes identical to the original code.

Since physician office claims represent the lion’s share of the planned archival database, a diagnostic accuracy rate (even stretching the point) of 62% made their utility for research purposes clearly questionable.

Methods — Interventions

It was, therefore, decided to introduce two actions, each of which might improve the accuracy of diagnostic coding. The first was to broaden the system already in use by all claims processors, namely to query claims with improbable diagnoses. For example, age/gender algorithms already in place will flag a claim for a male with a diagnosis coded as endometriosis. A claim thus flagged is queried, with payment deferred until an explanation or a correction is received. Because of frequent coding problems found with infectious diseases in the preliminary study, the DOH provided HMSA with a list of infectious diseases very unlikely to be treated in Hawaii (cholera, poliomyelitis, rabies, African sleeping sickness, etc). These were then added to the flagging algorithms already used at HMSA.

A second action to track coding errors caused by flaws in staff training was instituted in 1991. This entailed the selection of a small random sample (about 20 queries a week) of medical office claims that had cleared the routine claims processing algorithms (see above). A form letter was sent from HMSA each week to each of the 20 sampled physicians. They were asked for verification of the accuracy of the diagnosis found on the specified claim recently submitted to HMSA. The accompanying worksheet contained the patient’s name and birthdate, date of service, the ICD code of the submitted primary diagnosis, and a brief text of that code. The physician was asked either to confirm via the supplied self-addressed, postage-paid envelope that the diagnosis on the claim was correct, or to enter the correct diagnosis. The intent of this measure was to bring to the attention of physicians that elements on the claim are being monitored for accuracy. It was hypothesized that upon discovering coding errors, physicians will take steps to prevent their repetition by the office or service bureau staff responsible.

Results — Infectious disease flagging

A test run with the expanded infectious disease flagging system in early 1989 immediately identified several coding errors. The most spectacular was a pseudo-outbreak of about 20 cases of anthrax judging from claims coded 022 emanating from the office of one obstetrician. The last verified human or animal case of anthrax in Hawaii was reported shortly before World War I! When queried by
HMSA, it was discovered that the billing clerk in that office was unaware of the difference between 022 and the code V22, which indicates a normal pregnancy. The offer by HMSA to assist in additional training of that clerk was happily accepted, and the anthrax epidemic quickly subsided. Other clusters of coding errors, partly from lack of training and partly from typographical errors, were discovered in this fashion and were amicably resolved.

Results — Random queries

Table 1 reveals the distribution of random queries sent to a sample of 1,371 Hawaii physicians between January 1992 and July 1994. The 1,213 physicians who responded to some or all of the queries include a majority of physicians in active fee-for-service private practice in Hawaii. This response rate was unusually robust, with only 158 (11.5%) of the queried physicians failing to reply to any coding query sent. Most of the non-respondents had received only one or two queries during the 31-month study period. Another 178 physicians (13%) responded inconsistently, but the receipt by a physician of five or more queries invariably elicited at least one reply. The vast majority (84%) of these inconsistent responders failed to reply to only one of the queries sent, while responding to the rest. The remaining 1,035 physicians (75.5%) replied to all queries received, a truly remarkable level of cooperation.

Table 2 displays a response rate ranging between 79% and 86% from initial queries sent to physicians who had not previously been randomly selected, showing no trend over time. The number of physicians still available to receive their first query is steadily decreasing as time goes by. The response rate (84%) for those who received two or more queries was in the same range as for those who received their first query.

Compared to the low levels of coding accuracy previously found in claims from physicians (Fig 1), the results shown in Table 3 suggest a large improvement, with 94% now being validated as correct. The unprecise coding category is now down to about 6%, leaving less than 1% with a typographical or other obvious coding error.

Discussion

The remarkable improvement in medical office diagnostic coding accuracy helps to validate the utility of medical claims information for research purposes in Hawaii. The reasons for the great improvement are less clear. What is apparent is the simple act of calling coding errors to the attention of physicians, whether by claims flagging and subsequent inquiry, or by routine random sampling and verification, seems to have the desired effect of heightening attention to accuracy in claims.

Of importance to investigators who use diagnostic data from insurance claims is our experience with unprecise codes. Many claims reflect medical services provided to persons with chronic conditions. This usually means that the attending physician is dealing with multiple co-morbidities. At one encounter, the physician may properly report diagnosis A as primary, and for the same patient on a subsequent encounter may report diagnosis B (or C or D) as primary. And each could be accurate. Thus, investigators working with diagnostic data from insurance claims files must view all the diagnoses found in a sequence of claims in order to see the context of the disease or condition being studied. Only then can they properly accommodate shifting diagnoses for the same patient.

Acknowledgments

We owe a debt of gratitude to the early support of the Centers for Disease Control and Prevention, particularly Drs Steven Blount and Ben Truman. We wish to express our gratitude for the ongoing assistance provided by Yeiso Arakaki of HMSA and Jim Cooper of the DOH in carrying out these trials.

We especially are grateful to the 1,213 Hawaii physicians who responded to the queries during the past three years, without whom all would be for naught.
Shave Excision of Facial Tumors in Tuberous Sclerosis

Michael R. Brown MD, PhD,* F. Don Parsa MD**

Tuberous sclerosis can manifest itself by multiple facial nodules affecting primarily the nose, cheeks, chin, and the nasolabial folds. A simple tangential (shave) excision of these facial tumors is believed to be adequate treatment for some patients.

Introduction

Tuberous sclerosis is one of the large groups of neurocutaneous diseases seen by plastic surgeons, dermatologists, and other practitioners because of their cutaneous presentations. In 1880, Bourneville associated these cerebral lesions with those of the face, and in 1890 Pringle described the skin lesions of tuberous sclerosis in detail. Tuberous sclerosis is a systemic disorder characterized by a triad of facial lesions, epilepsy, and mental retardation. There is no sexual predilection and the inheritance pattern is probably autosomal dominant with variable penetrance. The incidence of tuberous sclerosis is one in 20,000. In the past, the facial lesions have been inaccurately called adenoma sebaceum; more recent studies have classified these nodules as angiofibromas that microscopically show interlacing strands of fibroblasts and collagen with numerous small blood vessels. Histopathologically, tuberous sclerosis manifests itself by hyperplasia of ectodermal cells of the skin, brain, heart, kidney, and retina.

The facial distribution of these nodules is quite characteristic and presents in childhood over the cheeks, nasolabial folds, and chin, as well as over the nose and forehead. The most common locations overlie the nasolabial folds and the chin. Other skin manifestations include hypomelanotic macules, subungual fibromas, and shagreen patches.

Alvarez first reported surgical excision and grafting of a massive tumor involving the right cheek in 1957, Divir and Hirshowitz describe cryosurgery of the facial lesions in 1980, and Mulliken first successfully treated these tumors with dermabrasion and limited excision in 1977.

A review of the literature over the past 15 years reveals a paucity of case reports describing specific treatments. Two cases of facial lesions as they occur in tuberous sclerosis are presented, and we will describe and discuss the rationale for our mode of therapy.

Case Report 1

LK, a 19-year-old Caucasian man, was referred for treatment of multiple facial tumors. The facial lesions consisted of smooth-surfaced pink to red nodules of various sizes localized to the nasolabial folds, cheeks, chin, and nose. The lesions had been present since the patient was five years old and had enlarged slowly and progressively. The patient also had a history of generalized seizures with mild mental retardation. A cerebral hamartoma was removed at age 15 and a left frontal cyst was drained a few months later. The patient developed hydrocephalus and required a ventricular shunt at 16. Physical examination revealed a well-developed man with mild mental retardation.

Multiple nodules, measuring from 1 mm to 8 mm in diameter, were present on the face (Fig 1). These were particularly abundant over both nasolabial folds and the chin but also involved the nose and the upper lip, with several small nodules present in the left retroauricular region. The patient underwent tangential excision with Nos 10 and 15 blades. The lesions were excised to the level of adjacent healthy skin. The postoperative treatment was identical to case 1 and good healing took place within 12 days without any complications. Figure 2 is the 12-month follow-up photograph.

Case Report 2

SW, an 18-year-old Caucasian man, was admitted for control of seizures and management of skin tumors. The patient had a history of mental retardation and a history of generalized seizure disorder since the age of three months. The facial lesions had been present since he was four. Physical examination showed a well-developed young adult with obvious mild mental retardation. There were multiple nodules present over the nasolabial folds, cheeks, and chin (Fig 3).

This patient underwent tangential excision under general anesthesia, utilizing Nos 10 and 15 scalpel blades. The lesions were excised to the level of adjacent healthy skin. The postoperative treatment was identical to case 1 and good healing took place within 12 days without any complications. Figure 4 is the 12-month follow-up photograph.
Discussion

The postoperative results were satisfactory in both cases, and there has been only minimal recurrence of the nodules in a one-year follow-up. We believe this conservative approach is adequate despite the fact that we do not totally eradicate the skin disease. The angiofibromas of tuberous sclerosis involve the full thickness of the skin. In these two cases with extensive involvement, total and complete removal would have required split thickness skin grafting for resurfacing. Such an approach is unwarranted in this clinical setting. These patients do benefit from the aesthetic improvement of subtotal removal, and since these lesions grow slowly, the likelihood that they will require further surgery is small.

In severe cases of tuberous sclerosis, approximately 30% of the patients die before the age of five years and 50% to 75% die before reaching adulthood. Those patients with lesser signs and symptoms can be expected to live longer, but might require further surgery for recurrent skin tumors—a reasonable approach, considering the minimal morbidity of the procedure recommended.

References

“Controversies in Medicine,” Highlights of the HMA Scientific Session

Elizabeth M. Adams MD, HMJ Reporter

The theme for this year’s scientific session was “Controversies in Medicine,” and a variety of topics were covered. On the first morning Michael S. Mega MD, from University of California, Los Angeles, spoke on the treatment of stroke and on the cause and treatment of Alzheimer’s disease. He was followed by Eliseo J. Perez-Stable MD, University of California, San Francisco, who addressed cholesterol testing and cancer screening.

Dr Mega noted that the best treatment for stroke is prevention, and when stroke does occur, it should be regarded as an acute emergency. For maximum benefit, therapy should be initiated within two hours of the onset of symptoms. Treatment centers should establish emergency stroke teams to handle these patients. The goals of initial treatment are to optimize cerebral perfusion, oxygenation and metabolism, to stabilize blood pressure and to normalize blood glucose. Language abnormality indicates large vessel disease. Thrombolysis and carotid endarterectomy were discussed. Blood pressure control should not be too strict, especially in those with a prior history of hypertension, to avoid loss of cerebral perfusion. Hyperglycemia indicates a poor prognosis; blood sugar should be maintained at 100-200 mg%. Patients need to be followed closely for brain edema (peak incidence on days 3 to 5) and treated promptly with mannitol and hyperventilation. Steroids should not be used. Dr Mega also described biochemical changes, particularly involving calcium and glutamate. Ongoing research in this area should lead to new treatments.

Next Dr Mega discussed the differential diagnosis of Alzheimer’s disease and other dementia syndromes, particularly vascular dementias. All involve cognitive decline. In vascular dementia there are focal neurological deficits, whereas in Alzheimer’s motor impairment occurs only late in the disease. Behavioral abnormalities are the usual reason for Alzheimer’s patients to need nursing home care. Causation and treatment of Alzheimer’s disease are the focus of ongoing research. One issue is whether or not amyloid is causally related to this disorder. Neurochemical changes in brain cells are similar to those in stroke. It is hoped that research in this area will lead to treatment and prevention of Alzheimer’s. At the present time Tacrine is the only FDA-approved drug. FDA looks only at cognitive changes in assessing treatment effectiveness. Researchers at UCLA consider both cognitive and behavioral changes and are exploring other treatment options.

Next Dr Perez-Stable discussed cholesterol screening and the use of cholesterol-lowering diets and drugs. Total cholesterol, LDL and HDL should be measured. Triglycerides are not a separate risk factor and are important only if LDL is elevated. Diet modification is the first line of treatment. Drug therapy should be reserved for those at highest risk (coronary or arteriosclerotic heart disease, men age 45 to 75, women age 35 to 75) who do not respond to diet change alone. After age 70 aggressive cholesterol lowering is probably not necessary unless coronary heart disease is present. Other risk factors to be considered are family history of early coronary heart disease, tobacco use, and hypertension. Niacin lowers LDL and raises HDL. In post-menopausal women estrogen also does both. The statins primarily lower LDL; psyllium lowers only LDL.

With respect to cancer screening, Dr Perez-Stable noted that effective screening requires that the number of false-positives with a particular test be low and that early detection reduces the risk of death from the cancer. There have been few randomized screening trials. Screening is more valuable for groups with a high incidence of a cancer, eg, screening smokers for oral cancer or early mammography for women with a family history of breast cancer. Early treatment of cervical cancer results in 90% survival. A Pap smear every three years is adequate except for women at high risk, and there is no need for Pap smears after age 65. Early diagnosis of breast cancer also reduces mortality; a clinical breast exam should be done annually from age 40 and mammography every 1 to 2 years from age 50. For both men and women, stools should be tested for occult blood annually from age 50, and sigmoidoscopy done every 5 to 10 years. Not recommended are chest X-ray or sputum cytology for lung cancer, ultrasound for ovarian cancer, mammography before age 40, and PSA for prostate cancer.

On the second morning we heard about laparoscopic surgery from Bradley Wong MD, the medical and surgical treatment of coronary artery disease from Irwin Schatz MD, antiviral therapy in the HIV-positive patient, and the care of patients with fatal illness by Donald Northfelt MD, of University of California San Francisco.

According to Dr Wong, the use of laparoscopy has increased rapidly since the first cholecystectomy in 1987 and is now being used for many other procedures. In general, use of laparoscopic technique can decrease pain and shorten hospital stays, reducing costs. However, longer operative and anesthesia time, more complications, and the need for expensive equipment increases costs. Accepted procedures for the general surgeon with average skills are cholecystectomy, appendectomy, diagnostic laparoscopy, gastrostomy, and jejunostomy. Procedures requiring more skill are bile-duct exploration, patching of perforating ulcer, biliary/gastric bypass, small bowel resection, colectomy, rectal prolapse, splenectomy, and adrenalectomy. Additional procedures now are being developed in this rapidly evolving field.

Dr Schatz discussed the decision-making process for determining whether to treat the patient with coronary artery disease medically or surgically. A great deal of information exists, but there have been no controlled studies comparing coronary artery bypass graft (CABG) and angioplasty or medical treatment. In addition to assessment of the individual patient (age, level of risk for future cardiovascular events, presence or absence of symptoms, history of previous infarction, which vessels are involved, etc), it is necessary to know the experience, skill level, and track record of the surgeon or cardiologist to whom the patient might be referred for invasive treatment. In general there is little data to indicate that angioplasty or CABG is really superior to medical treatment in low risk patients.
For patients at moderate risk, CABG prolongs survival in those with left main coronary artery disease or involvement of three vessels with reduced injection fraction. For high-risk patients, CABG prolongs survival, but in the elderly the complications are increased. Angioplasty may be preferable to CABG in this group, but good data are not available. Complications of CABG include myocardial infarction in 5% to 10%, cognitive impairment (which usually clears up) in 75%, and strokes in 5% to 8% of those 70 or older. Survival is improved with the use of mammary arteries in grafting instead of saphenous veins. Intensive medical treatment with changes in life style and clinical risk factors can reverse coronary artery disease and may be an alternative for some patients.

According to Dr Northfelt, the drugs currently available for HIV disease can delay the onset of symptoms and opportunistic infections; however, they do not prolong survival very much. Combinations of antiviral drugs may be more effective than the use of single drugs. All of the available drugs are highly toxic and many patients are unable to tolerate them. There is evidence that giving AZT intravenously to infected pregnant women does reduce the risk of transmission of the virus to the infant at the time of delivery. The Centers for Disease Control (CDC) now recommends this practice. Meanwhile new drugs are being developed and, it is hoped, they will produce better results for more HIV-infected patients.

Dr Northfelt discussed caring for patients with fatal illnesses saying the patient and the family need to be involved in planning the care. The goal should be to reduce suffering, which patients usually fear more than death, and improve the quality of remaining life. Particularly important are the control of pain (“The dose that works is the dose that works...No dose of morphine should be regarded as too much”) and dyspnea (narcotics are useful here, too.) Hospice care, preferably at home, should be made available. Hospital requirements for resuscitation are inhumane, and patients and families need to be told this. They should be told that, even if there is no possibility of cure, suffering can be relieved. The families that want to force nutrition and hydration on dying patients need to be told that this may increase suffering. Uremic death, for instance, is painless. Narcotics should be given as needed, and the family should be told that the patient will just go to sleep and that any restlessness they observe is not uncomfortable. Dr Northfelt expressed the opinion that euthanasia should never be allowed and that assisted suicide should not be considered unless suffering is intolerable and intractable and the competent patient requests it consistently.

The topic for the final morning was native Hawaiian health care. A panel composed of Fern Clark RN, Stanford Manuia Esq, Kahuna Laau Lapaaau Helen Walrath, Kakoo Leilani Hayes, and Drs Wayne Fukino, Ed Morgan, Steve Moser, and Terry Shintani discussed traditional Hawaiian concepts of health and illness and native healing practices. The ancient Hawaiians were thin, strong and healthy people; unfortunately, today native Hawaiians have the highest rates in the U.S. for death from heart disease, cancer, stroke, and diabetes. In 1988 the U.S. Congress passed the Native Hawaiian Health Act to address the problems in a culturally sensitive way. There are now native Hawaiian health care programs on all islands. Through promotion of healthier life styles, return to the traditional Hawaiian diet, and collaboration with native healers, changes in the grim health statistics have begun; some participants have lost weight, lowered their blood pressure, and diabetics have reduced or eliminated their need for insulin.
Life in These Parts
Hawaiian Rent All Sign
“Teed off? Play golf!”

Heard on KHVN radio
The commentator was covering the November 10 San Francisco-Dallas game: “The score is 24 to 0 with San Francisco leading. Ooops! There’s a penalty on that play. The call is tripping, but it’s more than that, his (the ball carrier’s) voice suddenly went alto.”

The hostess at the local saloon sprained her back when she tripped on the stairs. She later returned to work in high heels. “My doctor sez to keep my feet elevated,” she explained.

(Paul Harvey, November 13)

Physician Moves
October.—Anesthesiologists Donald Fancher, Jr and Robin Takata joined the Physicians’ Anesthesia Services at Kuakini Medical Plaza, Suite 306. Surgeon Glenn Kokame announced his retirement effective October 31 with this farewell note: “I wish to thank patients, physicians, and friends for their support for the many years.”

Potpourri
“I have good news and bad news,” the defense attorney told his client. “First, the bad news—the blood test came back, and your DNA is an exact match with that found at the crime scene.”

“Oh no!” cried the client. “What’s the good news?”

“Your cholesterol is down to 140.”

“Let me Rephrase...”
Doctor.—“Well those strange lumps on your buttocks don’t seem to be doing any harm. All I can suggest is that they could be due to a series of injections in which the needles were rather blunt and not properly cleansed and these are residual scar tissue from the infections. Have you ever had such injections?”

Patient: “Only once. Don’t you remember when I was a little kid with an earache?”

Chris Malcolm (Stitches, October 1995)

Letters to the Editor

In his letter dated September 30, Dennis Meyer complained: “The media is doing a great disservice to patients by giving broad coverage to papers concerning calcium channel blockers. Studies of 20 or fewer patients with controversial results are given front page headlines as “met analysis.” They are published in newspapers and produce panic in patients who frequently discontinue appropriate medical regimens only to experience serious complications. This community has many nationally recognized experts in all fields of health sciences. Please check with the authorities as to the validity of any scientific papers prior to publication. The First Amendment has a double cutting edge and requires extreme responsibility on all sides. This study and its media attention are comparable to crying fire in a crowded theater.”

Hors de Combat
In October, Kim Thorburn (Dept of Public Safety health care director) and Terrence Allen (prison physician for eight years) testified before lawmakers about how conditions in prisons have deteriorated the past two years. Kim reported that inmates are reluctant to ask for medical or mental health care because guards deny medical staff and inmate patients any privacy. Kim accused prison administrators of routinely interfering with medical decisions. Terrence described the Halawa High Security Facility as “a monster factory where men are dehumanized in a systematic fashion.”

Miscellany
Religion in the OR?
While making ward rounds with the charge nurse, I visited a gentleman awaiting surgery later that day. I asked him if he had any questions.

“No,” he replied, “the atheist was in and answered my questions.”

“You must be referring to the anesthetist,” I suggested.

The nurse interjected, “Well, the surgeons think they’re gods, so the anesthetists are atheists.”

T.A. Barnhill (From Stitches, October 1995)

Conference Notes
“Cardiovascular Medicine in Managed Care Era” lecture by cardiologist John Cogan at QMC-UH Friday morning conference, October 27.

Expenditures 1994: $128 billion
• Procedures
  1,057,000 cardiac caths
  407,00 CABGs
  550,000 angioplasties

Trends in Progress
Containment of health costs by: self-funding; formation of purchasing alliances; direct involvement in health care by business community. The “F” word is capitation; another cost-saving strategy is bundling (package pricing).

Cardiac Savings in an Era of Capitation
• Mitral valve prolapse: If click present on exam, then MVP is confirmed. ECHO is superfluous. Don’t order ECHO to ro prolapse, if no murmur, no need for endocarditis prophylaxis.
• Congestive heart failure: Use digitals to decrease hospital re-admissions. ACE inhibitors prolong life.
• Syncope-presyncope: Most of the causes are cardiovascular. Don’t send patient to neurologist first.
To place a classified notice:
HMA members.—Please send a signed and type-written ad to the HMA office. As a benefit of membership, HMA members may place a complimentary one-time classified ad in HMJ as space is available.
Nonmembers.—Please call 536-7702 for a nonmember form. Rates are $1.50 a word with a minimum of 20 words or $30. Not commissionable. Payment must accompany written order.

**Position Available**

**wanted:**—Unexpected opening for a physician for small tropical Pacific island, U.S. Wildlife Refuge and Defense Dept facility. Annual pay $115K with generous leave and benefits. Lodging and meals provided. Join 2 to 3 other physicians to staff low-intensity outpatient clinic. Close specialist, med/ed, and telemedicine support from Hawaii medical centers. Excellent recreational opportunities include windsurfing, sailing, scuba, tennis, golf and many other sports, with all equipment provided. A relaxing opportunity for a well-rounded and independent physician desiring a remote location. Fax CV to Human Resources, Kalama Services, (808)-836-1277, Attn: Leigh Wright, or e-mail kalamahi@aol.com.

**Services Available**

**Bookkeeping.**—Monthly financial statements, and individual and corporate income tax services. Reasonable rates. Call Wilson & Associates at 942-0263

**CCU admission:** only 50% CAD yield

**Acute MI**
Open artery hypothesis. Improved LV function; increased survival
- Medical management: streptokinase versus tPA; thrombolysis: danger of intracranial hemorrhage heparin; ASA
- Primary angioplasty: 90% success
All post-MI patients should be on: ASA indefinitely and beta blockers for 18 months.
ASA alone: 10.7% mortality
SK plus ASA: 8.0% mortality

**AMI Management:**
- Ejection fraction less than 40%: ACE
- Large infarction: Coumadin 3 mos
- LOS 5 days with predischarge TST

**PTCA:** Suitable for PTCA: any age; any coronary syndrome; any vessel or graft except LM: any vessel: single or multiple; any complicating medical problem; CRF, CHF, etc.
- Unsuitable for PTCA: Diffuse disease; small vessels; heavy calcification; old bypass; Lt main disease; old complete occlusion; restenosis.
- Disadvantages of PTCA
- Not for every coronary patient; restenosis; needs surgical team standby.

**In-Hospital Mortality:**
PTCA: Less than 1.0
CABG: Less than 2.0
Five-Year Survival:
PTCA: Less than 1.0

**CABG:** 92%
Primary Success:
PTCA: 90%
CABG: 90%
Cost:
PTCA: $9,000
CABG: $23,000

**Time Lost:**
PTCA: 3 weeks
CABG: 92%
Return to work:
2 days PTCA (79% to 100%)
10 days CABG (69% to 91%)

**PTCA**
Safe; effective; cheaper; prompt recovery; short LOS; less traumatic; prompt return to work
- Achilles Heel: Restenosis 25% to 35%
- Unresolved problems: Restenosis chronic total occlusions; radiation exposure to MDs and technicians.

**Comparison medical versus PTCA (3 years later)**

**Medical PTCA**
No symptoms 14%
Working 63%
**PTCA**
100% 80%

**Adjunctive Technology**
- Stents
- Eccentric stenosis
- PTCA dissection
- Inadequate response to PTCA
- Restenosis
- Grafts
- Rotoblator (rotational) Artherectomy:
- small vessels
- heavy calcification

Inpatients over age 60, look for abdominal aneurysm.
The Weathervane

There are two kinds of people, those who finish what they start, and so on...

Nice guy, witty and charming, Richard Mills MD, the outgoing president of the American Academy of Ophthalmology, honored the HOS at the November annual election meeting. Dr Mills has toiled in the fields of private practice and now serves as professor of ophthalmology at the University of Washington Medical School. His eloquence at the AMA House of Delegates in speaking on behalf of the AAO and all eye surgeons served to educate the House and helped forge the AMA policy opposing HCFA’s plan for centers of excellence. He noted that the AAO currently enjoys a high rating from members because the two-thirds who supported the plan to ally with Lenscrafters were glad for the effort, and the one-third who opposed it were happy with the failure. Now, says Dr Mills, the AAO leadership is primed, poised and ready to take a new direction, but doesn’t know which way to go.

There is nothing so ridiculous as the public in a fit of morality.

Three New York physicians challenged the constitutionality of laws that prevent assisted suicide. The point was made that the state recognizes the right of a competent terminally ill patient to refuse treatment even if doing so hastens death. The doctors contended that a patient in a similar circumstance, deciding to commit suicide with the help of a physician, is essentially the same issue. The court disagreed and held that a vast difference exists between allowing nature to take its course and intentionally prescribing death-producing medication. Present AMA policy reflects the court’s ruling.

A learned blockhead is a greater blockhead than an ignorant one.

A legal event in Texas may open the door for plaintiff’s attorneys to look into the personal medical records of a defendant physician. A doctor delivered twins, the first healthy, but the second suffered from asphyxia and was severely brain damaged. Two months after the delivery, the doctor was admitted to a mental health facility. Learning of the doctor’s health problems, the plaintiff’s attorney demanded to see the records of treatment and claimed that the information would reveal whether the doctor was “impaired” when he delivered the brain-damaged infant. The Texas Medical Association filed a brief on behalf of the doctor stating that a patient’s right to protection of medical records would be seriously compromised “if parties to a lawsuit can freely probe the supposedly secret records of their opponents by simply stating that the opponent might have some condition that contributed to the allegation.” By a vote of 8 to 1, the Texas Supreme Court ruled that the trial judge will review the records and release them to the plaintiffs “only to the extent necessary to provide relevant evidence relating to the condition alleged.”

We have only one person to blame, and that’s each other.

Now it can be told. Rude doctors get sued more than courteous ones! A study done at Vanderbilt University and reported in JAMA revealed that doctors who are rude, rush visits, and fail to answer questions are more likely to engender complaints. The patients of those doctors also reported twice as many instances of doctors’ shouting at them. Contrarily, doctors who had never been sued were seen by their patients as concerned, accessible, and willing to communicate. The point is obvious, yet needs repeating: misunderstanding and anger are often behind a patient’s complaint irrespective of the doctor’s technical ability. So, remember to speak softly, speak kindly, listen attentively, and always brush your teeth.

Rascality has limits; stupidity has not.

Bruce Vladeck PhD, head of HCFA, stated that the government may require eye surgeons to demonstrate that cataract extraction is medically necessary before Medicare will pay. Deja vu. Excuse me! Did the carriers not require such criteria just a few years ago, and did not the findings reveal that the effort was expensive and fruitless? “Surgery will not be considered necessary if the individual is able to function normally, or if the condition can be corrected with glasses,” said the director. Is it possible that what he really saying is Medicare will refuse to pay for a second cataract if the patient has had successful surgery in one eye?

In dealing with politicians, you can be sure of only one thing: the logical solution will not be adopted.

On one hand, Congress has urged market forces to establish costs and mechanisms for medical care, but now we see the Kassebaum-Bradley Senate bill to define hospital stays for deliveries. Supporters claim the legislation will outlaw the “drive-through” deliveries of some HMOs. Entitled “Newborns’ and Mothers’ Health Protection Act of 1995” the bill is almost certain to pass in some form or other. But if it is rational for Congress to micro-manage newborns, what about hospital stays for post-op surgeries? Some patients are just not ready to jog home after hernia surgery, not to mention cholecystectomy. Do they not deserve legislation? If HMOs or other managed care plans abuse patients or fail to provide quality care, doctors’ and patients’ complaints will force appropriate change. For Congress to practice medicine is a great threat to all, both patients and doctors.

Sign in San Francisco driveway—“Visualize being towed.”

Not long ago stolen cars were recovered at a rate of 85%, but times have changed. Now the recovery rate is down to 62%, and car thieves are much more likely to sell your stolen vehicle to a chop shop where it is stripped for parts, sold to a middleman, and resold, frequently to an overseas buyer. The most popular models for theft are Honda Accord, Olds Cutlass, Ford Mustang, Toyota Camry, Chevrolet Camaro, and Cadillac Deville. Cost to the public in 1994 alone was $7.5 billion, according to the National Insurance Crime Bureau.

Addenda

• In 1992, there were 1,455 ping-pong-related injuries requiring hospital visits.
• The cost of having Kim Basinger come to your party, $85,000; to have Pavarotti sing, $187,000.
• Most vegetarians look so much like the food they eat that they can be classified as cannibals.

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