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# The Use of the RPMS System and a Diabetes Audit in a Diabetes Clinic and Pharmacy Program

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## Introduction

Diabetes affects approximately 15.7 million people in the United States (5.9% of the general population) and is expected to increase in prevalence with the recent adoption of the new diagnostic criteria.[1] Native Americans and some other minorities are at greater risk for developing diabetes. Epidemic in proportion, the prevalence of type 2 diabetes among American Indians and Alaska Natives in the United States is 12.2% for those over 19 years of age, and is rising.[2]

The direct and indirect costs of diabetes in the United States for 1997 have been estimated to be $98 billion. This includes $44.1 billion in direct medical and treatment costs and $54 billion for indirect costs due to disability and mortality.[3]

The major complications of diabetes include kidney failure, blindness, amputations, and heart disease. Ten to twenty-one percent of all people with diabetes develop kidney disease. The rate of end-stage renal disease among Native Americans with diabetes is six times higher than that for all people with diabetes. The risk of a leg amputation is 15 to 40 times greater for a person (regardless of race or ethnicity) with diabetes. The rate of amputations among Native Americans is three to four times higher than in the general population.[2]

The Diabetes Control and Complications Trial (DCCT) has shown that tight control of type 1 diabetes, as defined by having a $Hb_{Alc}$ less than 7%, can reduce the risk of developing retinopathy, nephropathy, and neuropathy by 76%, 54%, and 60%, respectively.[4] Even with moderate control of diabetes, as defined by having a $Hb_{Alc}$ of 8% or less, the reduction of complications is significant. Once the $Hb_{Alc}$ reaches greater than 8%, the rate of complications escalates. Although these results were demonstrated in patients with type 1 diabetes, it was felt that the results would be similar in patients with type 2 diabetes, since the complications are virtually the same in both types of diabetes.

Such a long-term study of patients with type 2 diabetes has been completed. The United Kingdom Prospective Diabetes Study (UKPDS) has shown that the $Hb_{Alc}$ of the intensive therapy group (mean 7%) when compared to the conventional therapy group (mean 7.9%) was associated with a reduction in the risk of microvascular complications such as progression of retinopathy and microalbuminuria. Similarly, intensive blood pressure control (mean, 144/82 mm Hg) resulted in a 44% reduction of risk of fatal stroke and a 37% reduction in microvascular disease as compared to the conventionally managed group (mean, 154/87 mm Hg).

The UKPDS study has shown that any sustained reduction of $Hb_{Alc}$ will benefit the patient with diabetes. The DCCT also

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showed the effectiveness of a team approach in the management of diabetes. The Diabetes Strategic Planning Committee at the Santa Fe Indian Hospital (SFIH) incorporated this approach in delivering diabetes care beginning in 1998.

The SFIH diabetes clinic and pharmacy program rely heavily upon the consistent use of the RPMS (Resource and Patient Management System) package and PCC (Patient Care Component) coding to track annual exams, blood pressure readings, laboratory values, and patient education for those who receive care at the facility. The RPMS-based IHS Diabetes Audit program tracks parameters that reflect the minimal standards of care for patients with diabetes. This program can be used at any IHS facility that uses the RPMS package.

The goal of our project described in this article was to use the Diabetes Audit and the RPMS Health Summary to show improved diabetes control in the Diabetes Clinic and the Pharmacy based management program. The process also served as a performance improvement tool for patient care.

## The Study

A database of approximately 156 patients was established by reviewing and updating the Health Summaries of patients as they came through the Diabetes Clinic during 1998. From this database, 64 patients were studied and compared to 64 patients who received their diabetes care through the conventional clinic setting. A pharmacist was following an additional 16 patients who were referred to pharmacy from the clinic. Pharmacy interventions and follow-up visits were done from January 1998 through October 1998. This review covered the period January 1997 through December 1998. The data are shown in Table 1.

## Discussion

Although there are encouraging trends, it would be premature to assert that a pharmacy managed program had a positive effect on control of $Hb_{A1c}$ or blood pressure, although the groundwork has been done. Similarly, it is also too early to conclude that there is any improvement in $Hb_{A1c}$ or blood pressure as a result of the SFIH Diabetes Clinic. Blood glucose control is slightly improved in patients that come through the Diabetes Clinic, but these data have many confounders, such as the fact that more complicated patients are referred to the Diabetes Clinic or pharmacist for more intensive management.

The use of the RPMS package to create a Health Summary specific for the Diabetes Clinic makes visits more efficient and may explain the improved performance in the following areas: total height/weight measurements, blood pressure measurement, and pneumovax and tetanus immunization administration. Paradoxically, there were actually poorer results with flu vaccine administration through the Diabetes Clinic.

Proper PCC coding was stressed through the Diabetes Clinic. The outpatient nurses staffing it were given inservice training, for example, on coding patient education and on how to update the immunization records. The health summary became an accurate reminder of annual examinations and immunizations. The improvement in compliance with foot exams, eye exams and education was the result of proper coding by the providers, nursing, and pharmacy.

**Table 1. Audit Results (all data reported as percent)**

| | Jan. 1997 Control | Jan. 1998 Control | Jan. 1998 DM Clinic | Jan. 1998 Pharmacy |
|---|---|---|---|---|
| **Age/sex:** | | | | |
| Female | 50 | 50 | 45 | 38 |
| Age 15-44 | 20 | 20 | 25 | 13 |
| Age 45-64 | 56 | 52 | 55 | 63 |
| Age > 65 | 17 | 28 | 20 | 25 |
| **On ACE Inhibitor:** | 15 | 19 | 25 | 25 |
| **Weight:** | | | | |
| Overweight (BMI>27.2) | 48 | 45 | 52 | 63 |
| Obese | 28 | 30 | 27 | 19 |
| No BMI (no height recorded) | 31 | 30 | 8 | 6 |
| **Performed on at least 75% of visits:** | | | | |
| Weight | 48 | 56 | 89 | 81 |
| Blood Pressure | 48 | 58 | 89 | 88 |
| Blood Sugar(BS) | 8 | 31 | 55 | 56 |
| **Exams performed annually:** | | | | |
| Foot | 2 | 13 | 48 | 50 |
| Eye | 11 | 27 | 47 | 50 |
| **Education:** | | | | |
| Any diet | 5 | 16 | 33 | 38 |
| Exercise | 2 | 11 | 45 | 50 |
| Any Education | 9 | 33 | 78 | 75 |
| **Immunizations up to date:** | | | | |
| Flu | N/A | 38 | 19 | 6 |
| Pneumovax | 48 | 53 | 78 | 81 |
| Td | 67 | 69 | 81 | 94 |
| **Yearly Testing:** | | | | |
| Urine Analysis | 19 | 58 | 81 | 88 |
| Serum Creatinine | 64 | 75 | 94 | 94 |
| Cholesterol | 66 | 75 | 95 | 94 |
| Triglycerides | 9 | 23 | 45 | 31 |
| **BS Control as measured by $Hg_{A1c}$:** | | | | |
| Acceptable ( 7.5%) | 16 | 33 | 39 | 38 |
| Fair (7.6- 10.0) | 20 | 25 | 36 | 38 |
| Poor ( 10.1 - 12.0) | 13 | 11 | 19 | 19 |
| Very Poor (> 12.0) | 3 | 2 | 3 | 0 |
| Undocumented | 48 | 30 | 3 | 5 |
| **BP Control:** | | | | |
| Normotensive | 17 | 23 | 22 | 6 |
| Controlled HTN | 20 | 13 | 33 | 31 |
| Uncontrolled HTN | 20 | 28 | 22 | 31 |
| Severe HTN | 6 | 8 | 9 | 13 |
| Undocumented | 43 | 28 | 14 | 19 |

The clinic also had a longer time slot (30 minutes, as compared to 15) and patients arrived early for laboratory testing. This provided an opportunity for education by pharmacy or nursing, or dietary consults by our nutritionist. Pharmacy and nursing were responsible for ordering the annual and other laboratory tests. The laboratory greatly assisted the clinic by making the results available to the providers during the patient's visit. An improvement in yearly testing of urine, cholesterol, triglycerides, and $Hb_{Alc}$ may be partially explained by these improved procedures.

The physicians at Santa Fe Indian Hospital agreed to start annual microalbumin and triglyceride screening. Previously, triglycerides had not been part of the routine chemistry panel. Triglycerides were part of the lipid panel (a test sent out to the reference laboratory).

The results are biased in that an intensive chart review and updating of the health summary for immunizations and annual exams was performed on all the patients coming through the Diabetic Clinic and not on the control groups. Nevertheless, laboratory results and blood pressures, heights, and weights are unbiased for all patients regardless of where they received their care.

## Conclusions

These results show the positive effects of a team approach, consistent PCC coding, and a more intensive clinic setting in the management of patients with diabetes mellitus. It is too early to expect an improvement in the $Hb_{Alc}$ values or blood pressure control. The clinic will continue to operate, and it will offer the ability to track the current trends. Using the Diabetes Audit has been a useful performance improvement tool for patient care at Santa Fe Indian Hospital.

## References


1. Screening diabetes: Position statement by the American Diabetes Association. *Diabetes Care* 1996;l9suppl1:5
2. Diabetes Facts and Figures. American Diabetes Association Fact sheet. *http://www. diabetes.org/ada/c20f.asp*
3. Third party reimbursement for diabetes c, self-management education and supplies. Position statement by the American Diabetes Association. *Diabetes Care* 1998;21suppl
4. The Diabetes Control and Complications Trial Research Group. The effect of intensive treatment of diabetes on the development and progression of long-term complications in insulin-dependent diabetes mellitus. *N Engl J Med* 1993;329:977-86
5. The United Kingdom Prospective Diabetes Study Group. Intensive blood-glucose control with sulfonylureas or insulin compared with conventional treatment and risk of complications in patients with type II diabetes: (UKPDS 33). *Lancet* 1998;352:837-853
6. The United Kingdom Prospective Diabetes Study Group. Efficacy of atenolol and captopril in reducing risk of macrovascular and microvascular complication in type II diabetes: (UKPDS 39). *BJM* 1998:317:13-20
7. UK Prospective Diabetes Study Group. Tight blood pressure control and risk of macrovascular and microvascular complications in type II diabetes: (UKPDS 38). *BJM* 1998;317:703-713 □

# Maintaining Appropriately Trained Staff
## A National Council of Nursing Position Paper

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### The Issue

It is the responsibility of Indian Health Service/Tribal/Urban programs (I/T/Us) to assure and improve the quality of care provided to our beneficiaries through the availability of appropriately and adequately trained staff.

### Background

The responsibility of administration to maintain appropriately and adequately trained staff is well recognized, and mandated by accrediting organizations such as the Joint Commission on Accreditation of Health Care Organizations (JCAHO) and the Accreditation Association for Ambulatory Health Care (AAAHC). Opportunities for training, education, and development have consistently been cited as positively impacting recruitment and retention of health care professionals and other health care workers. However, many issues impact negatively on the ability of I/T/Us to provide education and training to employees, including decreased funding; remote locations; small numbers of staff; lack of available technology, such as satellite television; and lack of motivation of individuals or groups of employees. In addition, historically, there has been disparity in the distribution of funding for training.

The Indian Health National Council of Nursing (NCON) recognizes that the responsibility for maintaining appropriately and adequately trained staff must be shared by I/T/Us at all levels of administration and practice. A collaborative, cohesive effort will be required to continue to provide training and educational opportunities to our employees in the future.

### Discussion

There are several dimensions to assuring the availability of appropriately and adequately trained staff: preemployment, entry level education; orientation; on-the-job training; continuing education; and long term training.

*Preemployment, Entry Level Education*. Preemployment and entry level education qualifications are best dealt with through the development of comprehensive position descriptions; qualifications; knowledge, skills and abilities requirements; and, when appropriate, selective placement factors. Personnel Office benchmarks for many positions are severely outdated and do not reflect current practice. This often leads to General Schedule(GS) ratings (and thus salary) lower than needed to recruit qualified candidates.

*Orientation*. Lack of adequate orientation is often cited as a source of dissatisfaction among Indian health care employees. Too often the pressures of short staffing lead to a "sink or swim," "learn as you go" orientation. This is especially disconcerting to new graduates (who often come from widely varying basic education experiences) and new Indian Health Service or tribal employees, unfamiliar with the intricacies of Federal and tribal policies. In addition to increasing the stress level of new employees, the quality and safety of patient care may be impacted (e.g., fire procedures are unknown; the process of obtaining contract health care is a maze; documenting on a Patient Care Component (PCC) form and maintenance of the Health Summary are mysteries). The special cultural aspects of providing care and services to American Indians and Alaska Natives (AI/AN) are also often overlooked. This especially affects employees unaccustomed to dealing with cultures other than their own.

There may also be disparity between Areas, service units/facilities, departments, or even individuals in the quality and quantity of orientation received. The nursing department may have an excellent orientation program, but when the nurse educator or supervisor is on leave, no orientation occurs and it is not picked up on his or her return. Physicians may get full orientation at one facility; brief orientation at another; and none at a third facility. One Area Office may bring all new employees in for an orientation program, another may leave orientation up to individual service units/facilities. Preceptor and mentoring programs, where a new employee is paired with a more experienced employee, have proven successful in many settings.

JCAHO requires that health care organizations verify the competency of employees to perform their duties. In the private sector, competency assessment may be part of the preemployment screening process. The Federal government, however, must defer competency assessment until after the individual is hired. A new employee who met basic educational and training requirements may prove unable to perform basic competencies required by their position. Competency assessment, and subsequent training/education to bring an employee up to an acceptable level of competency, are time-consuming and may be costly, especially for departments already short-staffed and underfunded.

*On-the-Job Training/Inservice Education*. As with orientation, the quality and quantity of on-the-job training and inservices may vary widely. A hospital nursing department may have a full time nurse educator. The sole lab tech at a facility may report to

a lab full of equipment and no one around to show how to use it. Inservices may be provided on the day shift, missing employees who work full time evening or night shifts, or requiring them to stay over (and awake) or come in on their days off. Although many equipment companies routinely provide inservice on new equipment for staff, often they do not make the effort to reach remote locations.

*Continuing Education*. Continuing education may be provided "in-house" or out. Many of the same issues apply as for on-the-job training and inservices. In addition, because of the remoteness of many I/T/U facilities, the cost of bringing in qualified trainers and/or sending staff away to training also becomes a factor. In addition to travel costs, coverage and impact on patient care activities must also be considered. It is very difficult for an individual in a one person department, at any facility, to take time off. Although opportunities for continuing education via the Internet and satellite are increasing, many sites do not have access to the technology required to take advantage of these alternatives.

Traditionally, continuing education funding has been guaranteed to some health care providers on an individual basis; other health care categories may receive funding as a group; but many health care employees receive no special funding for education and training. Individuals often fail to utilize funding when it is available. Usually it is ancillary and support staff who miss out on training opportunities due to lack of funding, even when training could positively impact on the facility, e.g., coders who could improve third party billing and collections with increased training. When overall funding for a facility or Area is decreased, it is frequently education programs which suffer.

Professional employees often hold licenses (usually a condition of employment) from states that require the completion of continuing education to maintain licensure. Employees may also achieve specialty certification which requires ongoing continuing education. Although there is no obligation for the employer to provide continuing education in these circumstances, it is to the benefit of all I/T/U facilities to encourage retention of these employees by providing opportunities to obtain the required continuing education credit, by providing, at a minimum, administrative support, if financial support is not available. The Indian Health Clinical Support Center (CSC), by serving as the accredited sponsor of activities and awarding continuing education credits or continuing education units (CEUs) for health professional categories, is an excellent resource for helping professionals meet continuing education licensure requirements at the local level.

*Long Term Training*. Occasionally, an employee seeks long term training to improve skills or job marketability. This training usually consists of baccalaureate or masters level education, but may include lower level education or certification, e.g., a nursing assistant who wishes to become a licensed practical nurse. Many times the desired education would be beneficial to the facility, e.g., a nurse wants to obtain a nurse practitioner license and the facility needs cost effective primary care providers. When the education would benefit the Indian Health Service it is logical to provide some support to the employee. There are some programs available, such as the 437 scholarships and the nursing Section 118 (formerly NECI) program. These programs are highly competitive and have been severely impacted by recent budget cuts and tribes compacting or contracting and taking their shares of these budgets. Employees at isolated rural facilities are at a disadvantage in regards to access to colleges and universities when compared to employees in more urban areas. The growth of distance learning opportunities, e.g., via satellite, videoconferencing, or the Internet, is improving access, but these technologies are not always available to I/T/U employees.

## Recommendations

*Preemployment, Entry Level Education*

- Professional categories should work with the Indian Health Service and/or the Office of Personnel Management on a national level to upgrade basic personnel qualification benchmarks, many of which are over 20 years old, to assure appropriate rating of positions.
- Professional categories should develop standardized selective placement factors for critical positions, when appropriate.
- The Indian Health Service should encourage tribal and urban programs to implement basic minimum education and training requirements for positions to assure acquisition of adequately trained employees.

*Orientation*

- The Indian Health Service should develop a standard orientation program for export to all Areas and facilities. The program could be a self learning module, using video, computer, overhead, and/or slide formats, and should cover the basics of the Indian Health Service at a national level, e.g., headquarters organization, history, the legislative process, and other pertinent information.
- Similar orientations should be developed at the Area and tribal levels.
- Individual facilities should develop a standardized orientation program that is offered on a regular basis or which can be self administered.
- Each professional category should develop standardized, basic entry competencies, i.e., minimum knowledge, skills, or abilities needed to perform the duties of the job, for positions within their respective categories. All new employees should have their ability to meet these basic competencies objectively measured and documented at entrance on duty.
- Areas should consider development of regional "competency centers," perhaps in concert with local community colleges or universities. Centers would provide entrance competency testing for a variety of employee categories, and remedial training if needed.

*On-the-Job Training/Inservices*

- Formal training plans and contracts should be developed and implemented to assist new employees who fail to meet basic entry level competencies to attain the required knowledge, skills, and/or abilities.
- All contracts for new equipment should include a requirement for staff training by the vendor.
- Professional categories should develop and maintain lists of basic resources, including individuals, as well as policy and procedure or technical manuals. When ever possible, manuals should be available "on-line," or, at a minimum, on computer disk, to facilitate revision, access, and standardization.
- The Indian Health Services should facilitate acquisition and maintenance of computer hardware and software to enable computerization and export of manuals, computer assisted learning, Internet access, and other technological support.
- I/T/Us should facilitate use of local, in-house "experts" to provide inservice training between service units/facilities, assisting with travel between facilities, coverage, etc.
- The Indian Health Service should facilitate and nurture networking among members of professional categories, even if only at the Area level. This could be done through electronic mail groups, teleconferencing, newsletters, meetings, or other methods.

*Continuing Education*

- I/T/Us should pursue sponsorship of all professional training and education through the Clinical Support Center to assure the highest quality of education and so that continuing education credits can be awarded.
- The Indian Health Service should assess the current distribution of continuing education and training funds and develop a more equitable distribution plan that meets the needs of I/T/Us.
- I/T/Us should designate at least one individual at each facility to assess training and education needs; coordinate education programs, within and between facilities; and monitor use of education funds.
- I/T/Us should assess facility education needs and develop a prioritized education plan on an annual basis. Requests for continuing education should be evaluated based on the needs of the facility.
- I/T/Us should consider economies of scale when planning training programs, including the efficiency of bringing in speakers, opening programs to other I/T/U employees or facilities, sharing speakers, etc., as compared to sending individual employees to outside programs.
- The Indian Health Service should develop partnerships with colleges and universities to provide continuing education programs specifically tailored to I/T/U needs or to utilize local school satellite and teleconferencing facilities.
- The Indian Health Service should commit to assuring Internet and electronic mail access at all I/T/U facilities to all employees.
- The Indian Health Service should develop, maintain, and distribute lists of resources for providing continuing education opportunities, such as formal programs, individual speakers, and self learning modules.
- The Indian Health Service should facilitate and support national meetings of employees in selected professional categories, perhaps rotating between categories from year to year.
- The Indian Health Service should encourage individual specialty certification by providing cash or other incentives for acquiring and maintaining national certification related to an individual's position and profession.
- The Indian Health Service should encourage and facilitate attendance at professional conferences/conventions and membership and participation in professional associations.

*Long Term Training*

- I/T/Us should facilitate employees seeking advanced degrees through alternative means, e.g., distance training.
- The Indian Health Service should seek continued congressional support for programs such as 437 Scholarships and grants to schools providing scholarships and support to American Indian/Alaska Native students.

**Summary**

The National Council of Nursing believes that the challenges of maintaining an appropriately and adequately trained staff can be met through a proactive, collaborative approach at all levels of Indian health care.

*If you have comments or questions about this paper, please contact the author at (406) 247-7121, or contact Patricia Smith, RN, Nurse Consultant, Albuquerque Area IHS and Chair, National Council of Nursing, at (505) 248-4533.*

# The Effect of Patient Information on the Quality of Pharmacists' Drug Use Review Decisions

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The ready access to patient information historically enjoyed by Indian Health Service (IHS) pharmacists is virtually unprecedented in pharmacy practice. In comparison, most pharmacists – especially those in the community setting – routinely practice in a virtual informational vacuum. Having practiced in the IHS myself (Gallup Indian Medical Center, 1980-82), I have long been a strong believer in the importance of patient information for optimizing clinical decision making. It seems axiomatic that one cannot make good decisions with poor information, much less with *no* information. I have always considered the IHS to be a model for what could be – and should be – the standard of practice in pharmacy.

To date, however, there has been little empirical research that demonstrates the effect of patient information on the quality of pharmacists' clinical decision making. This dearth of empirical data represents a significant threat to the future of pharmaceutical care in general, and, potentially, to the future of information access for IHS pharmacists in particular. Increasing pressures to streamline care and reduce costs, coupled with rising concerns about the confidentiality of patient information, could easily result in policies that would restrict information available to health care providers to a "need to know" basis. In such a scenario, providers who have not clearly demonstrated a need to know, and an ability to use, patient information to improve the safety and effectiveness of care will not have access to that information.

The study by Warholak-Juarez, et al, ("The Effect of Patient Information on the Quality of Pharmacists' Drug Use Review Decisions," *The IHS Provider*, Volume 24, Number 11, November 1999, pages 175-176) represents an important step toward establishing empirical support for pharmacists' access to patient information. It is, however, just the first step in a journey that should have begun many years ago. The managers of health care are increasingly requiring hard evidence to support practice systems. Justifications like, "this is the way we have always done it," are no longer acceptable. One hopes that this study will stimulate additional research in this important area. But time is of the essence, for the forces of information restriction are already in motion.

As they did with patient counseling, it is appropriate that IHS pharmacists take a leadership role in demonstrating and validating their system of practice to the managers and policy makers in health care. In so doing, IHS can help to ensure that pharmacy continues its evolution toward a true clinical health care profession, and that pharmacists in all practice settings have access to the information they need to provide pharmaceutical care to the patients they serve.

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# The Annual Conference for Advanced Practice Nurses and Physician Assistants

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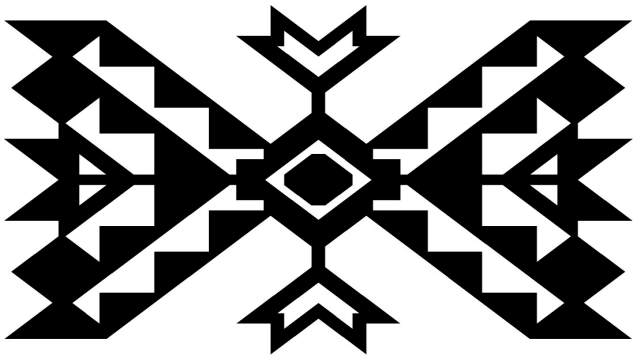
During the week of June 12-16, 2000, approximately 150 advanced practice nurses (APNs) and physician assistants (PAs) from nationwide Indian Health Service (IHS) and tribal health care facilities met in Scottsdale, Arizona for their annual continuing education conference. The attendees included nurse practitioners, physician assistants, certified nurse midwives, and pharmacists. These clinicians provide a significant amount of primary and specialty care throughout the Indian health system, often as the sole provider in remote, rural clinics. They also fulfill a wide diversity of other roles in Indian health facilities, such as health care administration, research, mental health, and program management.

During the first one and one-half days, an APN business meeting was held to hear updates about and discuss various administrative issues. In addition to networking and sharing resources, the business agenda included expert speakers on medical-legal issues, policy-making, grant writing, and specialty roles for APNs. CDR Sandra Dodge, FNP, Women's Health/ Public Health Nurse Consultant, from the IHS Nursing Headquarters in Rockville, Maryland, presented the goals and current projects of the new Headquarters nursing staff.

During the balance of the week, four concurrent continuing education sessions were held throughout each day, offering intensive seminars and workshops on diverse clinical topics, with an emphasis on primary care for American Indians and Alaska Natives. Health promotion, diagnosis and treatment updates, and prevention of infections were emphasized, as well as various social and mental health issues. An initial plenary session attended by all covered adolescent sexual health, a wellness approach to elder patients, and the objectives of GPRA (the Government Performance and Results Act) and the role of the Indian health provider. Nationally acclaimed experts in their health fields, the speakers provided interactive forums to address some of the unique aspects of Indian health care in urban and rural areas.

In addition to offering an exemplary agenda of continuing education topics, this annual IHS conference has been consistently well-organized and conducted with high professional standards. The IHS Clinical Support Center in Phoenix, the accredited sponsor, its staff, and guest speakers provided a cost-efficient (free attendance for IHS health care providers and only $200 for non-IHS attendees), outstanding opportunity for both networking and education. Clinical support and funding were also received from IHS Nursing Headquarters. This IHS conference for non-physician primary care providers is traditionally held in June every year in Scottsdale. For information about next year's conference, please contact the IHS Clinical Support Center at (602) 364-7777.



# PCC Orphan Visits — Everyone Needs a Home

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In the late 1980s, many Indian Health Service (IHS) providers realized that an electronic summary of their patients' medical record would be essential to providing appropriate medical care. Overflowing charts and illegibility, as well as lost or misplaced results, contributed to this impression. Providers believed that an electronic medical record would greatly increase their ability to review the clinical data during the patient's visit. The Resource and Patient Management System (RPMS) Health Summary was born from this concept. The foundation of the Health Summary is the Patient Care Component (PCC), an electronic repository of data resulting from inpatient, outpatient, and field visits. The current Health Summary is a "snapshot" of the patient's medical record, pulling clinical data from PCC for display either on a computer screen or as a printed report.

The PCC has evolved into a key element for other functions in the IHS beyond the Health Summary. For example, PCC data are critical for billing, and also are necessary to collect and integrate epidemiologic data for reporting requirements. Patient visits are counted from PCC data and these counts are used for resource allocation purposes.

## PCC Data are "Visit"-Focused

The demographic and clinical data collected and stored in the PCC are centered around the "patient visit." There are many components to a patient visit, such as an examination, a pharmacy order, and/or a laboratory test request.

Data enter the PCC in two ways, either manually and electronically. PCC data entry clerks manually enter data into the PCC from an encounter form that is completed by the provider during each patient visit. Multiple elements of data are entered; two key pieces are the purpose of visit (POV; that is, the diagnosis), and the primary provider for that visit.

In addition to manual data entry, many of the RPMS packages, such as Laboratory or Pharmacy, have a "link," enabling data to pass directly to the PCC electronically. The electronic data passed from these packages do not contain the POV and primary provider information.

If associated visits, such as to the laboratory or the pharmacy, occur on the same day as a patient visit to, say, the physician, the "electronic" data automatically merge with the "manual" data to create a "complete PCC visit." However, when visits to laboratory or pharmacy occur on a date other than the physician patient visit, an "orphan visit" is created – a visit created electronically that is missing the POV and primary provider.

Since visit data from the PCC are used for many purposes, including billing, resource analysis and allocation for limited IHS funds, and data reporting, it is important that all visits be merged into a complete visit. Orphan visits are not billable through the Third Party Billing Package nor are they exportable to the Data Center for Medicare or Medicaid billing or visit counting.

## Avoiding Orphan Laboratory Visits

The Laboratory Package is one of the RPMS packages that automatically passes data to the PCC. In order for these "laboratory visits" to be completed and billable, they must be merged with the original patient visit. If the laboratory visit and actual patient visit are on the same date, these visits will automatically merge and become one complete visit.

In those cases when the laboratory visit occurs on a date other than the patient visit (e.g., the provider saw the patient on one day and requested a laboratory test to be done on a subsequent day before the next visit), an "orphan laboratory visit" is created, because of the difference in the dates of service. As mentioned, these orphan laboratory visits currently are not billable.

How can these orphan laboratory visits be avoided? Each site should consider implementing *both* of the following solutions:

1) *Require that the patient deliver to the laboratory a copy of the PCC encounter form that includes the order for the test(s) they are obtaining.* Each time a provider orders a laboratory test for a future time (e.g., "Come back in the morning for a fasting Lipid Panel"), a PCC encounter form would be completed by the provider. This form must contain the date, the test(s) ordered, the POV, and primary provider. The patient should take this encounter form to the laboratory. The laboratory staff should collect this encounter form when the patient arrives for the test and forward it to the PCC department. The PCC clerks will then have the POV and primary provider to complete the visit that was created by the laboratory visit.

2) *Each PCC department should use the "Orphan Laboratory Utility."* This utility can either be run manually or automatically through Taskmanager and will attempt to merge orphan laboratory visits with the actual patient visit. Instructions for using this utility are in the PCC Data Entry manual, supervisor's section. Additional computer programming to enhance this utility is in progress and should be released shortly. This option should be used in conjunction with the PCC error report to troubleshoot "real" orphan visits that need to be investigated.

In the longer term, the problem of the orphan laboratory visit should be solved by passing the POV and primary provider data electronically to the PCC along with the laboratory data to create a complete PCC visit, independent of any manual data entry by the PCC clerks. This addition to the Laboratory Package is currently being discussed.

## MEETINGS OF INTEREST

### Improving the Quality of Health Care for American Indians and Alaska Natives
### August 3-8, 2000; Tucson, Arizona

The 29th Annual Meeting of the American Association of Indian Physicians (AAIP) will offer a number of activities including the ever popular Women's Retreat, Medical Student Program, Gourd Dance/Pow Wow, and Plenary Sessions focusing on the annual meeting theme: "Improving the Quality of Health Care for American Indians and Alaska Natives." We also will offer a high quality CME program that will include subspecialty updates for primary care physicians. This year's annual meeting will be held at the Westin La Paloma Hotel located at 3800 East Sunrise Drive, Tucson, Arizona. This invitation is extended to all Indian and non-Indian physicians, physician assistants, medical students, nurses, tribal leaders, Indian organizations and other individuals interested in Indian health. For more information please contact AAIP at (405) 946-7072; e-mail *aaip@ionet.net*; or see our banner on our website at *www.aaip.com*.

### The Pharmacy Practice Training Program (PPTP): A Certificate Program in Patient-Oriented Practice
### August 7-10, 2000; Phoenix, Arizona

The goal of this four-day training program for pharmacists employed by the Indian Health Service or Indian health programs is to improve the participant's ability to deliver direct patient care. This program encompasses the management of patient care functions in the areas of consultation, communication, interviewing techniques, laboratory test interpretation, conflict resolution, physical assessment, and disease state management. These techniques are taught utilizing case studies, which include role-playing and discussion. For additional information, contact the IHS Clinical Support Center, Two Renaissance Square, Suite 780, 40 North Central Avenue, Phoenix, Arizona 85004; phone (602) 364-7777; or e-mail: *edward.stein@mail.ihs.gov*.

### Innovations in Elder Care: A Participatory Conference
### August 19-22, 2000; Duluth, Minnesota

Planned to run concurrently with the National Indian Council on Aging (NICOA) 2000 conference, this meeting is intended to bring together those from throughout the Indian health care system who provide care to elders to share experiences in the development and implementation of programs to enhance care of elders. For more information, contact the National Indian Council on Aging, 10501 Montgomery Blvd., NE, Suite 210, Albuquerque, New Mexico 87111; telephone (505) 292-2001; fax (505) 292-1922; e-mail *evagdpe@nicoa.org*.

### Clinical Pharmacy Nephrology CE Program
### August 21 -25, 2000; Albuquerque, New Mexico

The overall objective of this course is to train pharmacists to act as consultants and pharmacotherapy managers of patients with progressive renal disease and end-stage renal disease, including those on dialysis or who have undergone transplantation.

The curriculum will include a review in renal anatomy and physiology, and the pathophysiology of chronic renal failure (CRF); diagnosis and intervention opportunities in CRF; diabetic nephropathy; and end-stage renal disease (ESRD) diagnosis and treatment options, including hemodialysis, peritoneal dialysis, and renal transplantation. Other topics to be covered include interpretation of laboratory data; anemia

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THE IHS PRIMARY CARE PROVIDER

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**Publication of articles:** Manuscripts, comments, and letters to the editor are welcome. Items submitted for publication should be no longer than 3000 words in length, typed, double spaced, and conform to manuscript standards. PC-compatible word processor files are preferred. Manuscripts may be received via e-mail.

Authors should submit at least one hard copy with each electronic copy. References should be included. All manuscripts are subject to editorial and peer review. Responsibility for obtaining permission from appropriate tribal authorities and Area Publications Committees to publish manuscripts rests with the author. For those who would like more information, a packet entitled "Information for Authors" is available by contacting the CSC at the address below or on our website at *www.csc.ihs.gov*


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