Progress Notes

Winter 1999

From the Editors

Improving the Implementation of Clinical Practice Guidelines"

Clinical practice guidelines are frequently used to define standards of care for quality improvement initiatives. They may be used to streamline care, and to ensure all clients are receiving a baseline of care that is standard across an organization and has clinical integrity. In addition, clinical guidelines also provide quality improvement initiatives with systems of care or procedures to measure the impact of an improvement effort. For example, are foot exams being given to diabetics on an annual basis? Do children discharged from the emergency room for an asthma admission receive a referral to the local asthma education program?

While clinical guidelines can serve to define a standard level of care for all patients, and can contribute to continuous quality improvement, they can also be lightening rods for controversy. We chose to focus this edition of "Progress Notes" on some of the issues that arise in health systems working to use clinical practice guidelines in their quality efforts. We worked with members of MAIN-DQIN from across Massachusetts to develop this newsletter. The focus of the newsletter is to discuss strategies for effectively implementing guidelines in your group practice, community health center, or hospital clinic. As you read through the newsletter, please feel free to contact the individual authors with questions or comments. ■

Guidelines in Your Practice

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Music to Teach By

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Music to Teach By

"Music to Teach By: Education as a key component of guideline implementation" Patricia Donahue Zavatsky, MSN/MBA, RN, CS-FNP, Mason Square Neighborhood Health Center, 11 Wilbraham Rd. Springfield, MA 01109
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"It's raining, it's pouring, you patient's not snoring, His peak flow's down, he's turning brown, and he might not get up in the morning."

Asthma education at Mason Square Neighborhood Health Center has taken a rather unconventional turn. Staff can be found singing songs or performing skits in order to teach providers and staff about critical points related to asthma care. It all began several months ago, after attending asthma task force meeting at Baystate Medical Center. Dr. Evan Benjamin had presented the hospitals Inpatient Guidelines of Care for the patient with asthma. The participants were then

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Making Guidelines Work

"Making Guidelines Work in Small Medical Practices" Andrea Turoff, MM Research Assistant • HIPPO Asthma Project, The Childrens' Hospital,
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Many barriers stand in the way of implementing evidenced based practice guidelines in health care settings. These barriers include both clinical and logistical issues. Clinical issues may entail disagreement by practitioners with specific guideline recommendations, or may focus on areas where the guideline itself is ambiguous. Logistical issues range from not having equipment required by a guideline, to financial incentives working contrary to guideline recommended practices, or to administrative systems that interfere with communication and continuity. Compounding these hurdles, a fundamental barrier often overlooked is the lack of existing strategies in small medical practices and community

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"Moving from Research to Practice: Development and Use of Evidence Based Practice Guidelines – An Acute Care Experience"

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Research can and should be used to develop practice guidelines and recommendations for effective and efficient patient care. Such was our experience at a tertiary care teaching facility in Western Massachusetts using the revised National Heart Lung Blood Institute (NHLBI) Recommendations for Treatment of Asthma.

Guideline Development

Development of evidenced based practice guidelines was stimulated by the following factors:

- Request for Application (RFA) from the Department of Medical Assistance (DMA) regarding asthma care targeted at education and follow up to reduce rates of hospitalization
- Observation of large volumes of asthmatic patients on the short stay/observation inpatient unit by physi cians rounding daily on this patient population
- The benchmarking process.

External benchmarking was done with American Association of Medical Colleges (AAMC) Comparative Administrative Data Sets (CADS) which provides length of stay information, readmission rates and Charlson scores for severity of illness and risk stratification of patients. Internal benchmarking was done using Baystate Medical Center's Decision Support HCM system which provides historical administrative data on performance over time. This data analysis confirmed for us that an opportunity existed to improve care and consistency in caring for the asthmatic population.

Identification of the work team was crucial. Clinical leaders in the respective areas (i.e. pediatric asthma and adult asthma) were identified and agreed to lead the teams. A multidisciplinary team was comprised of representatives from the following:

- pulmonary physicians
- internal medicine
- pediatricians
- respiratory therapy
- patient education specialist
- pulmonary rehabilitation nurses
- discharge planners
- providers of home care equipment
- home nursing service
- pharmacy
- staff nurses from dedicated pulmonary units
- ambulatory care (clinics)
- emergency service.

This group reviewed the NHLBI recommendations for care of asthma and honed them for local application. The review identified the primary components of the guideline. We concurred that our guideline should reflect the areas that could have the largest impact on care consistency in therapeutics, as well as directly address the RFA targets – patient education and follow up care.

Application of the Guideline

Consistency in care was to be achieved through an on-line computer order entry system supported by a hard copy when needed. The therapeutics include recommendations on use of steroids, to be given by mouth if patient is able to tolerate (not automatic intravenous use), as well as when to convert to oral route if intravenous steroids are utilized. Also utilized is a bronchodilator protocol that allows respiratory therapy and nursing staff to advance the beta agonist bronchodilator therapy as the patient's clinical situation improves (i.e. increasing time interval between treatments, conversion to metered dose inhaler (MDI) from nebulizer). Peak flow measurement is done in conjunction with beta agonist administration to monitor improvement. Incorporated into this care is exchange of information with patients at the "teachable moment."

Patient Education

A formal, standardized patient education module was developed by the subcommittee of the work team. A foundational survival skill set for asthmatic patients was identified and extracted from the NHLBI recommendations. These skills were:

- use of a metered dose inhaled (MDI) with a spacer
- peak flow monitoring
- crisis planning
- basic information on asthma.

A patient education specialist and the pulmonary rehabilitation nursing service were instrumental in identification of written materials for distribution to support the teaching. The selection criteria we used to screen materials for use in the program included education level, clarity and graphic presentation at the most affordable price. Fortunately, the educational materials were available in pediatric versions as well as in appropriate dialect for our patient population.

Crisis Planning

The guideline includes the development of standardized crisis plans tailored to each patient during their hospitalization, based on the "zones." As the patient improves post exacerbation, the plan is reviewed and adjusted as indicated during the follow up process. An education protocol is negotiated between respiratory therapy, the nursing staff on the affected patient units; the pulmonary rehabilitation nursing service is also involved in this process as they deliver the educational content as a team. This education protocol is built into the practice guideline.

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Applying Guidelines in Your Practice: Suggested Steps to Take

Why are you doing this?

- Review and analyze available data to understand where a standardized guideline or improvement project might be useful
- Identify your chronic disease management improvement goals and evaluation measures

Who should be involved?

- Identify key stakeholders within your system
- Recruit key stakeholders to participate in a guideline work team
- Include representatives from all of the disciplines that impact the improvement goal

How do you apply the guideline?

- Identify and review available guideline(s)
- Identify key components that relate to your current practice and your improvement goals
- Identify the areas where the guideline could have the greatest impact on your care coordination and outcomes (e.g. medication prescription, use of durable medical equipment, patient education)
- Work with key stakeholder groups to develop and implement changes necessary to implement the guideline or guideline component as relevant to the guideline and your improvement goals (e.g. define criteria for referring patients to specialty care, develop a checklist for use when reviewing a patient for a specialty referral, develop a process for making sure patients use the referral, collect data on whether patients are being appropriately referred for specialty care and whether patients are actually following through with the referral)
- Work with key stakeholder groups to provide education and training to relevant staff and patients regarding the changes being made in care protocols. ■

Notice of release of Request for Responses on improving care and reducing costs for the uninsured

The Massachusetts Division of Health Care Finance and Policy released a Request for Responses (RFR) on January 29, 1999. The RFR seeks proposals from hospitals, community health centers, health care networks, and others currently or potentially serving the low-income uninsured and underinsured, for programs of comprehensive, coordinated care for this population.

The Division is responsible for the administration of the Uncompensated Care Pool. It has been authorized by recent legislation to fund demonstration projects exploring innovative approaches to care for the low-income uninsured and underinsured that have the potential to both improve health outcomes and reduce the cost of care. A major goal of this initiative is to gather information, through the development and testing of model programs that will assist the Division in setting future Pool policies. The Division is particularly interested in approaches that (1) reduce the rate of preventable hospitalizations by providing primary care for patients with ambulatory care sensitive conditions, such as asthma and diabetes; (2) improve coordination of care for patients with multiple or chronic conditions; and (3) provide services in a more efficient or appropriate manner. The authorizing legislation requires demonstration projects to reduce the financial liability of the Uncompensated Care Pool by at least the amount expended by the Pool on such projects. Grantees will be required to assist the Division in conducting a thorough evaluation of the funded programs.

Funding is available for both established and new programs. A total of approximately $5,000,000 will be available for a one-year period, from July 1, 1999 to June 30, 2000. Grant amounts will be available in the range of $30,000 to $400,000 annually based on the number of low-income uninsured and underinsured individuals served and the justification for funding. Contract renewals are expected for two additional years, depending on satisfactory performance and availability of funding. Proposals are due on April 2, 1999.

A copy of the RFR is available on the Commonwealth Procurement Access Solicitation System (Comm-PASS) Web site, at www.comm-pass.com. For those without access to the Internet, access is available at many public libraries. Printed copies are also available at the Division of Health Care Finance and Policy, 2 Boylston Street, Boston, MA, and at regional Department of Public Health offices.

"Making Guidelines Work *(continued from page 1)*

health centers to support the process of change in clinical care. Most small practices are not familiar with management approaches to change and improvement, the "how to" of guideline implementation. Helping Improve Pediatric Practice Outcomes (HIPPO) is an initiative that helps pediatric practitioners establish those "processes" necessary for guideline implementation in the clinical care of pediatric asthma. HIPPO emphasizes that both knowledge of clinical management, *and* knowledge about systems and improvement is necessary for successful

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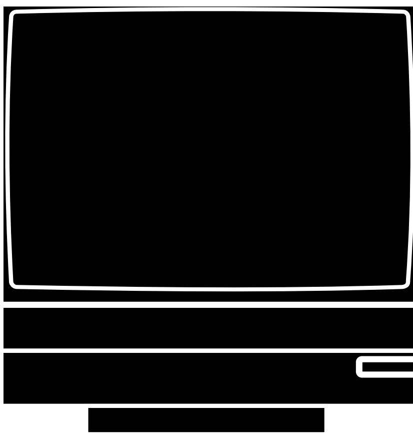

Sources of Guidelines Information

The federal government recently launched a new, electronic source for clinical guidelines. If you have access to the internet, check out www.guideline.gov to search a national database of guidelines developed by government agencies, private organizations and professional associations. Other sources for guidelines include:

Asthma

www.nhlbi.nih.gov/nhlbi/lung/asthma/prof/asthmagdln.pdf – The Asthma Guideline developed by the National Health, Lung and Blood Institute; you must download Adobe Acrobat to read this. Adobe Acrobat is free software that you can use to read web-based documents. You can download this from www.adobe.com. Older computers may not meet the specifications necessary for downloading this software.

Diabetes

A new statewide diabetes guideline will be unveiled by the Diabetes Control Program of the Massachusetts Department of Public Health in the next couple of months. A multidisciplinary team of diabetes practitioners using grant funds from the Centers for Disease Control and Prevention developed this guideline. The guideline will be disseminated through a variety of sources, including this newsletter. Kate Alich or Darcy Bacall from the Diabetes Control Program can answer any questions you may have about this. They can be reached by telephone at 617-210-5043 or through email at kalich@state.ma.us or dbacall@state.ma.us.

www.diabetes.org/DiabetesCare/Supplement198.default.asp – American Diabetes Association Clinical practice recommendations for 1998. The supplement to the ADA newsletter, "Diabetes Care," provides electronic links to 1998 practice recommendations for diabetes, as well as organizational position statements on a variety of topics including nutrition recommendations, administration of insulin and unproven therapies.

www.diabetes.org/dqip.asp – The Diabetes Quality Improvement Project is an initiative of the American Diabetes Association. Although the DQIP is not a guideline for diabetes care, it does provide diabetes outcome related measures that can be used to measure the effectiveness of guidelines or quality improvement projects. Dr. Sheldon Greenfield of the New England Medical Center was the Chairperson of the workgroup that developed the DQIP measures. ■

"Making Guidelines Work *(continued from page 3)*

guideline implementation. Using a collaborative learning model, the staff of the HIPPO project provide group learning activities for participating practices in both the technical aspects of asthma care and in the process of implementing change. HIPPO provides each practice with identical clinical tools, including management plans and asthma severity wall charts and pocket cards. Because practices are unique with respect to patient population, patient size, office resources, and staff, *how* each practice implements these guideline tools differs. The HIPPO team coaches each practice individually in making changes in care, aided by other practices' experience. The role of the HIPPO team coach is to:

- Identify a team of people in the small practice or community health center who are interested in implementing an improvement project
- Work with the team to assess the current systems of care in the practice
- Work with the team to identify components of good asthma care
- Identify barriers to change and prioritize problems within the practice
- Work with the team to pick an area for change.

One of HIPPO's strengths is that it teaches practices how to use quality improvement tools such as implementation and measurement plans, emphasizing the act of measurement for *improvement,* not *judgment*. Focusing on learning the process of quality improvement, practitioners are learning the techniques that will enable them to continue to make changes and sustain improvements in other clinical areas of office-based care long after the HIPPO project has ended.

challenged to develop outpatient guidelines of Care for adults and children with asthma. Several meetings were conducted. Each representative from affiliated clinics, schools, physician office brought tools currently in use. These were exchanged, and efforts directed toward developing one tool.

As Clinical Champion for Asthma, I took these tools, a copy of the Expert Panel Report 2: Guidelines for the Diagnosis and Management of Asthma and developed rough draft proposal of outpatient clinic guidelines. Education tools were modified, further developed by the hospital committee membership. The outcomes were

- Outpatient management guidelines
- Provider Asthma Management Flow Sheet
- Asthma Education Documentation Tool
- Asthma Action Plans for Adult and Children.

These tools were further developed, refined and distributed to the collective membership. Each member was challenged to return to his or her community health center and develop an Asthma Action Team. This team would spearhead the implementation of these guidelines.

The Mason Square Community Health Center developed an Ad Hoc Team with membership from three key clinical areas. Mason Square is a residency teaching center. We have on average 31 residents, seven attending physicians, two family nurse practitioners, one pediatric nurse practitioner, and a physician assistant. Our goal was to develop a process for implementation and subsequent evaluation of the "Asthma Guidelines of Care."

In accordance with the hospitals asthma initiatives the A-Team developed a three tiered approach to the implementation of these guidelines. The first tier was to develop/ implement the outpatient guidelines. Second, we needed to educate the providers and staff. Our third tier was to educate the patient/family. This program would need to be tailored to the diverse educational, cultural, and literacy needs of our patients. Our clinical outcomes would be to decrease asthma ER/hospitalizations. To do this we would:

- Accurately identify patients as intermittent, mild, moderate or severe asthma
- Ensure that every patient was on a reliever medication, in addition to rescue as appropriate.
- Patient would be actively involved in education process
- Every patient would have an Asthma Action Plan mutually developed, tailored to their specific needs.

Tier One: Developing Outpatient Guidelines

In order to facilitate continuity of care the following tools were developed:

- Provider Flow Sheet: This tool identified specific criteria which would be assessed at every clinic visit for the patient with diagnosis of asthma.
- Patient/Family Education Flow Sheet: This tool was divided into three sections. It contains an educational assessment, Teaching methodologies and reference materials, Teaching outcome goals.
- Asthma Action Plan: These tools were specific self-treatment plans for the patient/family based upon the concept of "Green, Yellow, Red Zones" with paired behaviors. Three plans were developed based on literacy level.

The A-Team felt these tools vital in enabling providers to achieve clinical outcomes. They facilitated continuity of care, reinforcement of concepts to the provider and patient, and empowerment of the patient. It is so important to give patients specific actions to utilize when they're having difficulties. We need to actively involve the patient in actions designed to promote wellness, identify changes in their health status and take appropriate action, not wait for a crisis. The patient/family is empowered, strongly encouraged to take responsibility for their health, and actively participate in their care.

Tier Two: Provider and Staff Education

The second main tier of our program was provider/staff education. We wanted to have our entire staff become familiar with the practice guidelines, become involved in teaching and reinforcing behaviors based on the educational guidelines, evaluating outcomes, and modifying the asthma plan of care as indicated. We knew that our providers "knew" the information. Our challenge was to provide a "refresher course" that would reinforce the education process and clinical outcomes to which we were holding ourselves accountable.

Our approach would be one of music, songs, skits and an experiential exercise. Two thirty- minute educational programs were developed. The content for the first included an overview of the guidelines, assessment of asthma severity, concept of the Green-Yellow-Red zones, selection of reliever and controller based on patients needs, and a one minute experiential exercise on how asthma felt. The second program had new music, songs, and skits. Here our focus was on the Asthma Action Plan. We presented over-all management, but really focused on an individual plan based on the patients needs (cultural, educational, functional ability, development and literacy). We used humor and had a great deal of fun. The programs were thirty minutes in length. They were repeated daily for one week. The second session was presented five months after the first. The programs were well received, and open to all. Learning objectives were well attained.

Tier Three: Patient and Family Education

The third tier was directed to educate the patient/family. This was truly a team approach; everyone from the medical assistant to the physician was actively involved in the process. We wanted the patient to:

- Demonstrate self-administration technique
- Talk in their own words what a medicine was for and how to use it
- Demonstrate how to check their peak flow
- Use their Asthma Action Plan.

It is important to give patient/family specific action to

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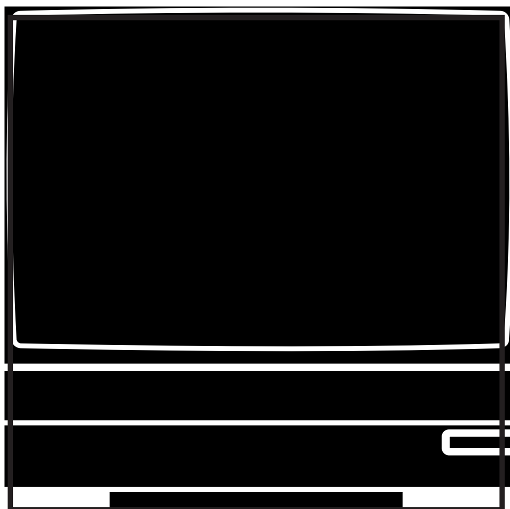
Music to Teach By *(continued from page 5)*

utilize when they're having difficulties. The patient should know what to do with information s/he receives, what steps to take to eliminate factors that trigger asthma, or reduce exposure to these triggers, and what to do when they are beginning to get ill or are ill. Three different providers were involved in the education process; patient/family education was provided by the provider, coordinated by the nurse practitioner, and reinforced by the asthma nurse educators. Education was delivered in one on one sessions, groups, and referral to pulmonary rehab program. All related resources within the health center were maximized for the education program including: smoking cessation, stress management, financial aid, behavioral health, nutrition, pulmonary rehabilitation, and pulmonology.

National Demographics

National demographics indicate that asthma affects approximately 14.6 million Americans. Mortality rates are on the increase, as are hospital admissions. The American Lung Association (ALA) in 1998 reported that directs costs of asthma are 9.8 billion dollars a year, and indirect (e.g. loss of productivity) costs are 2.8 billion dollars. The ALA also reported that inpatient services cost 4.2 billion dollars. Asthma is a killer. The A-Team firmly believes that empowerment, active participation in education of the patient/family, implementation of a specific asthma action plan saves lives and money.

We encourage all health care providers to take up the challenge, develop and implement a program that focuses on the health care team, maximization of resource and patient empowerment. If you do, it is possible that your patients will soon be singing: "*I can breathe clearly now, the triggers are gone. I have no wheezing in my way. Gone are the house mites that made me gasp. Gonna be a bright, bright, sunshiny day!*"



Research to practice *(continued from page 2)*

Assessment of the patient's skills and knowledge is done on admission and revisited on an ongoing basis. Frequent communication among the team members about the progress of the patient is essential. For patients who meet the referral criteria (newly diagnosed asthmatic, frequent readmissions > 2 per 12 months, smoking cessation, additional education support is indicated) a follow up outpatient, one on one appointment is made available. These referral criteria allow the primary nurse to assess and determine each patient's educational needs. The referral appointment is made before the patient was discharged.

Also included in the guideline are discharge criteria which cue the primary care provider into key recommended actions, one of which is a follow up appointment. Since implementation of the guideline, in more than 50% of cases, patients left the hospital with a follow up appointment for their primary care provider.

Guideline Dissemination to Providers

Dissemination of our guideline was initially done through mass mailing, physician's newsletters, and hospital publications. However, the most effective way to engage our providers in using the guidelines has been with two major actions, through case management and helping the provider understand the relevance of the guideline to their patients' care.

We use a modified case management model. The case manager finds and contacts providers if their patients are candidates for guideline use. In most cases, once the contact has been made, the guideline is used. This case manager also tracks predetermined outcomes and reports to the appropriate Performance Improvement Committee. This model gives providers information on clinical outcomes of care – how they're doing in caring for their asthmatic patient.

Secondly. the guideline "makes life easier," it assists the provider in caring for his or her patient. This has been shown in the recent literature to be the most effective determinant in future use of practice guidelines. Using this model, we have enjoyed 60% use of asthma guideline in our asthma populations.

Conclusion

Our experience in using the asthma guideline has been a positive one. We have demonstrated reductions in lengths of stay, readmission rates, cost per case as well as increased patient satisfaction and positive changes in patient knowledge and quality of life as well as a decrease practice variation. These results are encouraging, not only for our future efforts with practice guidelines, but for other facilities who are contemplating entering the world of practice guideline development and implementation. ■

Announcements

Award Nominations

The Healthtrac Foundation has announced a call for nominations for its Health Education Award, a $25,000 award for a health educator who has made an outstanding contribution to the field of health education or health promotions as a result of innovation in research, program development or program delivery. The Healthtrac Foundation has also announced a call for nominations for the 1999 Fries Prize, a $50,000 award for major achievement in health improvement (unrestricted as to field) with an emphasis on achieving the greatest good for the greatest number.

Nominations for both awards are duue 5/15/99. To request instructions, please contact the Healthtrac Foundation, 525 Middlefield Road, Suite 250, Menlo Park, Ca 94025; telephone 650-614-2612 or email Sarah Fries at SarahFries@healthtrac.com.

Call for Papers

The journal "Education for Health" is planning a special issue, to be published in Fall 2000. The theme is "Enhancing Patients' Health Behaviors." They are interested in manuscripts that present projects and research reports, as well as provocative "think pieces." The focus of submissions should be on achieving those changes needed in teachers, learners and/or institutions for producing future health professionals who will be effective at helping their patients adopt and sustain healthy behaviors. The deadline for submission is October 31, 1999. Contact Dr. Hilliard Jason, Editor, for more information on this call for papers. Dr. Jason can be reached by email at H.Jason@uchsc.edu.

We want to hear from you!

Articles are being solicited for the Spring 1999 issue of "Progress Notes." The theme of the newsletter is "Effective Collaboration to Improve Asthma and Diabetes Care." The deadline for article submission is Friday April 2nd. Please consider writing a short article about your organization's experience coordinating asthma or diabetes care across agencies or departments. For example, you may have a successful stratergy for writing and implementing treatment plans with interdisciplinary teams, or want to share the pitfalls you encountered in your efforts to improve patient education programming between your practice and the local senior center. These are things your colleagues across the state want to learn about. Give Gretchen Kinder a call at 617-210-5695 to share your article idea with her. Gretchen can also be reached through email at gkinder@nt.dma.state.ma.us. Gretchen is happy to help you think about what to write, and we have an editorial board who will help edit your piece. If you'd prefer to simply draft an article for "Progress Notes," please do so and mail it to Gretchen at the Office of Community Programs, UMass Medical School, 55 Lake Avenue North, Worcester, MA, 01655.

If you have an announcement about upcoming meetings, resources or information you would like to share with other members of MAIN-DQIN, please let Gretchen Kinder.
Send all announcements to her either by email to gkinder@nt.dma.state.ma.us or fax them to 508-856-4850.

Save the Date

June Meeting of MAIN-DQIN

Save the date! The June meeting and networking conference of MAIN-DQIN is sheduled for June 17th! We will again hold the meeting in Shrewsbury, as this is a central location for all members of these statewide networks. The theme of the meeting is "Barriers: Pathways to Care". If you would like to run a workshop or participate in another way, please contact Joanna Ezinga at Berkshire Area Health Education Center, 413-447-2417. Joanna can also be reached by email at JoEzinga@aol.com. Registration brochures will be sent out in late April. Look for yours in the mail and sign-up tp join us in Shrewsbury on June 17th.

Urban Asthma Management Conference

Hartford's Hispanic Health Council, in conjunction with Hartford's Community Health Partnership, will be holding a conference titled "Asthma Management: Entering the New Millenium" on Thursday, April 8th, starting at 4:00 pm. The conference will be held at DeSalles Hall in Hartford. Physicians and all other primary care providers across New England are invited to attend. Invited speakers include Dr.Robert Mellins, who will speak on urban asthma management, and Dr. Scott Weiss, who will speak on the epidemiology and economics of asthma. there will also be a poster session that features models that work in urban asthma management from around New England. The registration fee is $20.00 or $10.00 for students and school nurses. Dinner is included with your registration fee. For information on registration, or if you want to present a poster, please contact Byron Backenson at the Hartford Health Department, 860-547-1426 extension 7008. Byron can also be reached by email at pbryon@juno.com.

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Progress Notes

Winter 1999

MAIN/DQIN

Massachusetts Asthma Improvement Network/ Diabetes Quality Improvement Network