# Managing The Challenges of Diabetes (A DNE Perspective)







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## **Objectives**

- Awareness of challenges as a program
  - Challenges with the process and current system
  - Sources of education
- Awareness of challenges of educator
  - Evolving practice and responsibility
- Awareness of challenges with patients
  - Importance/value of diabetes education
  - How do we reach the patient?
  - Perspective of the patient
- Opportunities
  - What is needed/suggestions



## Clinical Practice Guidelines 2003— Organization and Delivery of Care (S14-15)

- Diabetes care should be organized around the person with diabetes using a multi-and interdisciplinary DHC team approach (Grade B, Level 2)
- Diabetes care should be systematic and incorporate organizational interventions that have been shown to improve healthcare efficiencies, such as databases to provide patient and physician reminders, and transfer of information, organized diabetes clinics, and tools including clinical flow charts (Grade B, Level 2)
- Responsibility of members of DHC team (family physician/specialist)....standards of care
- People with diabetes should be offered initial and ongoing needs-based diabetes education in a timely manner to enhance self-care practices and behaviours (Grade B, Level 2)
- Role of diabetes nurse educators (Grade B, Level 2) and other DHC team members (Grade D, Consensus) should be enhanced in cooperation with the physician to improve coordination of care and to effect timely diabetes management changes.



# ICES Practice Atlas—Diabetes in Ontario

 "very limited ability to evaluate access to and utilization of this important component of DM care" (14.253)



# Ottawa Charter for Health Promotion of the WHO, 1986

 "we need to promote health by helping people develop their skills so that they have the skills necessary to make healthy choices. They also need the skills to deal effectively with illness and injury when they occur"



# Challenges as a program



## **Challenges with Current system**

- Many programs are associated with hospitals
- Focus is often acute care
- Operating budget is based on # of visits
- No recommended staffing ratios
- Limited resources
- Not all programs offer multi-disciplinary approaches



# Challenges with reaching people

- 27% to 35% of people with diabetes ever receive diabetes education\*
- 10-15% of diabetes population we serve
- 10% of diabetes related admissions and emergency services were referred to DEC\*\*

<sup>\*</sup>Group Practice Journal 1996, pg. 11, DMTC, 2001.

<sup>\*\*2002</sup> Self-Assessment and National Recognition Program



## Challenges with the process

- Awareness of education programs
- Physician referral
- Many physicians don't refer for education
  - Wait-times
  - Wait until there are problems
  - Respect for educator's knowledge/experience
  - Competition for care



## **Sources of Education**

- Diabetes Education Centres
- Physicians' offices
- Pharmacies
- Chiropodists
- Internet







# Standards of Care for Diabetes Education Centres, 2000 (DES of CDA)

- "represent the desired goals of diabetes education provided that the identified resources are available"
- Belief statements
- Standards:
  - Outcome
  - Process
  - Structure
- Revised and available this summer



### Standards of Care for Diabetes cont.

- "multi-disciplinary staffing for diabetes education service is consistently adequate"
- "Staffing permits sufficient time for education services"
- "staffing permits timely access..."
  - Within 48 hours for BS>20 mmol/l or ketonuria, newly dx.
    Type 1, pregnancy, DKA, crisis
  - 1-2 weeks for gestational diabetes



## **Certification Process**

- National Recognition program
- Diabetes Educator Certificate (CDE)



# American National Diabetes Education Program (NDEP), 2004

- Developed "Guiding Principles for Diabetes Care"
- Designed for the health care team
- Form the basis for public and professional awareness programs
- Copies available for people with diabetes and their families



## **Seven Principles**

- Identify people with pre-diabetes and undiagnosed diabetes
- Provide ongoing, patient-centered care
- Offer diabetes education
- Treat diabetes comprehensively
- Monitor blood glucose control using the A1C test
- Prevent long-term diabetes problems
- Identify and treat long-term diabetes problems



## What is needed?

- Guidelines/principles/standards for consumer
- Increased awareness of recognized programs that meet standards of diabetes education
- Identified staffing ratios/multidisciplinary team
- Physician champion/voice at administrative level
- Reduced wait times
- Protected funding
- Marketing and awareness of importance of education



# Challenges as an Educator



# **Evolving practice**

- Increasing knowledge—complexity of disease and evidence based studies
- Increasing number of available treatment choices ie. oral agents and insulins
- Increasing technology—meters, computer software, pumps, continuous glucose monitoring systems
- More extensive clinical practice guidelines





Insulin



#### **Treatment Choices for Diabetes 2005**

Oral Agents

Rapid Acting:

Sulphonylureas:

Glyburide (Diabeta)

Gliclazide (Diamicron)

Glimepiride (Amaryl)

**Short Acting:** 

Regular(Toronto)

Lispro (Humalog)

Aspart (Novorapid)

R

Secretagogues:

Repaglinide(Gluconorm)

Netaglinide (Starlix)

Intermediate:

**Long Acting:** 

NPH

Ν

Lente

Ultra-lente

Lantus (Glargine)

**Biguanides:**Metformin

Alpha-glucosidase Inhibitors:

Prandase (Acarbose)

Thiazolidinediones:

Roziglitazone (Avandia)

Pioglitzaone (Actose)

**Pre-Mixes:** 

10/90; 20/80; 30/70; 40/60; 50/50

Mix 25

**Combination Agents:** 

Avandamet

Avandaril



# **Available meters April 2005**





## Meter software





# **Pumps**





## **Insulin Pens**





## Increased responsibility

- Must be current with practice
- Limited time/funding for continuing education
- Awareness of new therapies available
- Awareness of limitations
  - medical directives/policies/procedures
  - College standards







## Role of Educator

- Assessment
  - Health and lifestyle
  - Psychosocial support
  - Financial situation
  - Medication regime
  - Blood work
  - Knowledge level
  - Health beliefs
  - Fears
  - Goals
  - Needs







### Role of Educator cont.

#### Education

#### **Diabetes Nurse Educator**

- Help them understand their diabetes
- Eliminate myths
- Teach them actions of medications/how to take them
- Select devices
- Observe technique—return demonstrations
- Physical assessment

#### Dietitian

- Teach them about their food—meal planning, portion sizes, carbohydrates, fats, protein
- Eating out/special occasions
- Carbohydrate counting
- Alcohol



### Role of Educator cont.

- Treatment
  - Adjustment of medications
  - Carbohydrate/insulin ratios
  - Correction factors for insulin
  - Treatment for hypoglycemia
  - Sick day management



### Role of Educator cont.

- Support
  - Encourage self-management
  - Recognize stages of change
  - Understand what diabetes means to each patient
  - Continual follow-up
  - Support groups



# "Education is not filling the pail; it is lighting a fire." Wm. Butler Yeats



## Challenges

- Complicated cases—where to refer?
- Identified foot care problems—where to refer?
- Unable to order blood work or access results
- Unable to refer to Ophthamology
- Limited finances/no benefit plans
- Communication—email/Privacy Act
- High no-show rate/no response rate
- Outcome data collection



## What is needed?

- Multidisciplinary team including physician, DNE, dietitian, social worker, secretarial/clerical support, chiropodist
- Designated planning time/education time
- Ability to order lab results/electronic link for results
- Electronic systems for reminder/follow-up contact/data collection
- Updates and support from industry reps re: new medications and equipment
- Continue to build on partnerships with industry
- Advocacy for financial support for patients



# **Challenges with the Patient**



## **Diabetes Care Reality Check**

- The patient delivers <u>ninety percent</u> of the care
- Even the <u>best</u> regimen is doomed to failure without the patient's skillful implementation





## **Patient Perception**

- Change in patient attitude
- Very busy lifestyle
- Access to internet
- "feel fine"
- Many don't take it seriously



## **Health Beliefs**

- Model to explain why people do or do not take preventative action with respect to their health
- People will determine their action based on their perception of susceptibility, seriousness and the barriers and benefits of treatment
- Cost/benefit analysis



## **Adult Education**

- Adults are self-directed
  - learn what they need or want to learn
- Adults are task or problem-oriented learners
  - know what their most pressing problems are
- Adults bring experience to the learning situation
  - may have negative or positive experience
- Adults are more likely to learn when learning has meaning for them
  - May have effect on family, career, other personal problems

Belton, A., Simpson, N., "The How To's of Patient Education", 2003.



## **Behavioural Change**

- Process of change— "Stages of Change"\*
- 5 identifiable stages
  - Pre-contemplation
  - Contemplation
  - Preparation
  - Action
  - Maintenance
- Cycle forwards and backwards
- Takes several cycles before change is successful

<sup>\*</sup>Proschaska, Diclemente, 1994



## How do we reach the patient?

- People must understand why it is important to them
- Must value the outcome
- Need to understand why?
  - Testing times
  - Why strive for target?
  - What to do with results



# **Dispelling Myths**

- Fear of insulin
- Fear of lows, "coma"
- Fear of length of needle/where to inject
- Fear of complications



### Communication

When patients answer questions, they...

- First, tell you what they think you want
- Then what they think is right
- Next, what they have been told
- Finally, what they do



## What barriers exist?

- Environment conducive to learning
- Psychological factors—stress, depression, anxiety, fear
- Availability/access
- Language/culture
- Reading Level/Math level
- Finance



## How do we get Patient "Buy-in"?

- Respect the patient's experience and beliefs
- Identify what their needs are—what is most important to them?
- Guide the patient rather than lead
- Value mistakes as necessary to learning
- Provide opportunities for patients to observe and practice
- Keep groups interactive
- Establish relationships—make them feel important
- Offer support and encourage follow-up



## What is needed?

- Advertising directed at pre-contemplative and contemplative stages
  - Simple information to heighten awareness of the benefits of change
  - Focus on pros vs cons
  - Speak to your "diabetes educator"



## What is needed cont.?

- Easy to read information/literature in physician's office, walk-in clinics, pharmacies, optometrist's offices
- Easy to use devices
- Discreet devices
- Minimal pain
- Financial assistance



# "The great aim of education is not knowledge but action" (Herbert Spencer)

# Thank you!





