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Notice of Requirements For Successful Completion

Learners must attend the full activity and complete the evaluation in order to claim continuing education credit/hours.

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Presenter: Ellen Cobb, BSN, RN – No COI/Financial Relationship to disclose
Presenter: Doris Acuna, BSN, RN – No COI/Financial Relationship to disclose

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Learning Objectives

• Describe the role/value of DSME via telehealth modalities
• Describe the telehealth technology available within the Air Force
• Describe the DSME via VTC/MIST initiative
• Discuss the limitations and strengths of the program identified during the pilot program
• Discuss the feasibility of expanding the program to the AFMS and DoD

Defining the Problem

• >50,000 people with diabetes in the AF healthcare system
  – 9 endocrinologists
  – ~10 CDEs in dedicated positions
• Bulk of diabetes care by Primary Care
  – Varying levels of expertise/interest
  – Inconsistent levels of care/education
Defining the Problem
Air Force Medical Operations Agency (AFMOA) conducted enterprise wide AFSO21 (Air Force Smart Operations for the 21st Century) on diabetes care and education
- Diabetes care non-standardized and fragmented
- Diabetes Center of Excellence (DCOE) tasked with addressing/standardizing care and education

Initial Solutions to Standardize Care
Targeted providers
- Diabetes Central on AF Knowledge Exchange
- Diabetes Champion Course
- Diabetes ECHO (providers)
- Diabetes Webinars (nursing and support staff)

Next step: Targeting patients
Diabetes Self-Management Education (DSME)
- American Diabetes Association (ADA) recommends all patients with new diagnosis or without prior education should attend DSME
- Not available at all Military Treatment Facilities (MTFs)
- Not always available in the network for referrals

DSME in the Air Force
Current options
- Patients deferred to network
- Disease Managers provide diabetes education
- Clinic staff provides abbreviated, non-standardized education associated with office visit
- Certified educator provides complete education (limited access)

DSME via Telehealth
- An interactive real time telecommunications system is required. The patient and provider must be able to see and hear each other.*
- Patient must be present and participate in the telecommunication

ADA Education Recognition Program Guidelines
Originating Site

- Location of the **patient** during the DSME
- Does **not** have to be ADA/AADE recognized and may bill for third party insurance
  - Can charge billing fee per participant using HCPCS code of Q3014 (January 2013, $24.43)

Distant Site

- Location of the **educator** during the DSME encounter
- Distant site **has** to be ADA/AADE recognized
  - DCOE DSME recognized by ADA since 2007
  - Reimbursement same as if provided in person

Telemedicine success for DSME

- Pilot study suggests DSME-T may offer opportunities for DSME among rural residents with diabetes.
  - Balamurugan, Hall-Barrow, Blevins, Brech, Phillips, Holley, & Bittle (2009)

- Literature review (852 publications) suggests that both teleconsultation and videoconferencing are **practical**, **cost-effective**, and **reliable** ways of delivering a worthwhile health care service to people with diabetes.
  - Verhoeven, van Gemert-Pijnen, Dijkema, Nijland, Seydel, & Steehouder (2007)

- Diabetes education via telemedicine and in person was **equally effective** in **improving glycemic control**, and both methods were **well accepted by patients**. Diabetes-related stress reduction was observed in both groups.

- Multi component telehealth strategies **effectively** utilized to **conduct remote DSME** to rural, underserved, and clinically diverse primary care setting.
  - Davis, Hitch, Sallam, Herman, Zimmer-Galler, & Meyer-Davis (2010)

- Outcomes from the diabetes disease management program "**increased** the number of diabetics who brought **blood glucose under control**."

- Literature review (58 publications) supports DSME-T as **useful**, **appropriate**, and **acceptable to patients and providers**.
  - Fitzner & Moss (2013)

- Literature review (852 publications) suggests that both teleconsultation and videoconferencing are **practical**, **cost-effective**, and **reliable** ways of delivering a worthwhile health care service to people with diabetes.
  - Verhoeven, van Gemert-Pijnen, Dijkema, Nijland, Seydel, & Steehouder (2007)

Coding and Billing

- **Originating Site Staff “Telepresenter”**
  - HCPCS Q3014 (CY 2015 $24.83)

- **Distant Site**
  - HCPCS G0108 and G0109 with GT modifier
  - Reimbursement same for telehealth services as if provided in person
### DSME via Telehealth Initiative

Proposed that the DCOE could provide DSME via telehealth to MTFs throughout AF using in-place technology and resources.
- Certified Program and CDEs at DCOE
- Disease Managers at each MTF
- Current telecommunication technologies

### Available AF Technology

- Skype and other web-based conference software not an option
- Video Tele-Conference (VTC)
  - Not available at all MTFs
- Medical Interagency Satellite Training Program – MIST

### DCOE

Recognized program since 2007
- Certified Diabetes Educators
- Interdisciplinary faculty
  - Registered Dietitians
  - Clinical Psychologists
  - Exercise Physiologist
  - Endocrinologists

### VA-DoD MIST Program

- Air Technology Network (ATN) is located at Wright-Patterson AFB, Ohio
- Mission is to promote, manage and deliver instructional broadcasting for DoD distance learning programs and other interactive television (ITV) users

### Disease Managers

Six essential components
1. Population identification
2. Evidence-based clinical practice guidelines to reduce practice variation and improve care
3. Collaborative practice models
4. Patient self-management education
5. Process and outcome measurement, evaluation, and management
6. Feedback and reporting to stakeholders

### VA-DoD MIST Program

- ITV
  - One-way video & two-way audio
  - Via satellite
VA-DoD MIST Program

• Variety of Instructional Methods
  – HD video & high-end graphics
  – Live, interactive learning exercises
  – Student interaction with the experts—standardized instruction
  – Student to student interaction—enhanced in a classroom setting through audio-conferencing

Current Technology

• MIST classrooms available at all MTFs
• MIST studio to be installed at DCOE summer 2016
  – Interim VTC

VA-DoD MIST Program

• Inexpensive course development
• Inexpensive delivery for medium-to-large audiences
• Inexpensive downlink equipment
• ITV integrates well with online media

DSME via Telehealth Initiative

Phase 1
  – September 2015 partnered with Randolph Air Force Base Disease Managers
  – October 2015 “dry run”
  – January 2016 went live
  – June 2016 collected 6 month data

Program Development
Program Development

- Curriculum review
- Assessments
- Documentation
- Training for Disease Managers
- Marketing

Curriculum Review

Review/update lectures
- Standardize curriculum (PowerPoint slides)
- Assessments and data collection
  - Knowledge
  - Attitude
  - Behavior
- SMART goals

Curriculum

Class 1: 1st Tuesday of each month, 0830-1130 CST
  - Initial Assessments
  - Overview of Diabetes
  - Nutrition, part 1: Healthy Eating

Class 2: 2nd Tuesday of each month, 0900-1130 CST
  - Exercise
  - Hypoglycemia
  - Nutrition, part 2: Choosing a Diet

Assessments

<table>
<thead>
<tr>
<th></th>
<th>Class 1</th>
<th>Class 2</th>
<th>Class 3</th>
<th>Class 4</th>
<th>6 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial (demographics; social &amp; lifestyle; basic health history)</td>
<td>X</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Knowledge Test (True/False)</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>Diabetes-related Distress Scale (DDS-17)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>Self-report behaviors</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient Satisfaction Survey</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Provider Satisfaction Surveys</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

Documentation

- Electronic Health Record: AHLTA (Armed Forces Health Longitudinal Technology Application)
- "Notewriter": locally developed Excel-based database
**Notewriter**

- Once data entered
  - Generates a note that is copied/pasted into AHLTA
  - Collects/stores data for future use
  - Storage meets HIPPA requirements
- Facilitated documentation
- Facilitated data collection
  - Recognition
  - Pilot project

**Challenges at Distant Site**

**Broadcasting issues**
- VTC to satellite link, technical issues
  - Power outages
  - High circuit volume, audio and visual loss
  - Overhead mikes—difficulty hearing speaker, picks up background noise
  - Time lag for 2-way conversation (3-6 seconds)

**Training for Disease Managers**

**Binders**
- Copies of PowerPoints/handouts
- Assessments and data collection
- SMART goals
- Patient and provider evaluations

**Documentation**
- Notewriter/AHLTA
- Database

**MIST Studio**

Anticipated installation October 2016
- Costs—minimal due to grant funding for implementation of MIST throughout DoD
- Facility challenges
  - Moving to new facility
  - Modifications to classroom
  - Telephone/Internet/power requirements
  - Coordination through committees

**Challenges at Distant Site**

- Getting faculty buy-in
- Scheduling classes
  - VTC room—location, conflicts
  - Coordination with Randolph for attendance
- Comfort in front of camera
  - Remembering to look at camera
  - Soliciting input from distant audience

**Challenges at Originating Site**
Challenges at Originating Site

- Soliciting support
  - Leadership/Clinic staff
  - Disease Managers
  - Patients
- Venue/MIST classroom
  - Location in conference room upstairs
  - Shared conference room
  - Support from Education and Training

<table>
<thead>
<tr>
<th>Challenges at Originating Site</th>
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</thead>
<tbody>
<tr>
<td>- Check-in, Scheduling and Documenting</td>
</tr>
<tr>
<td>- Reserving the conference room</td>
</tr>
<tr>
<td>- Learning how to operate the MIST equipment</td>
</tr>
<tr>
<td>- Computer unavailable in room</td>
</tr>
<tr>
<td>- Delayed documentation</td>
</tr>
<tr>
<td>Procured laptops: facilitated check-in/scheduling/documentation</td>
</tr>
</tbody>
</table>

Challenges at Originating Site

- Program development
  - Training for the Disease Managers
  - Trial run October 2015
  - Binders and materials

- Recruiting patients
  - Provider briefings
  - Referral process
  - Scheduling

<table>
<thead>
<tr>
<th>Challenges at Originating Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Documentation to Notewriter</td>
</tr>
<tr>
<td>- Familiarization</td>
</tr>
<tr>
<td>- Data collection</td>
</tr>
</tbody>
</table>

Challenges at Originating Site

- Broadcast issues
  - Location of TV within conference room
  - Quality of picture, especially when using whiteboard
  - Loss of audio or video
  - Microphone issues
  - Changes in equipment/lack of technical support

<table>
<thead>
<tr>
<th>Challenges at Originating Site</th>
</tr>
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<tbody>
<tr>
<td>- Procured laptops: facilitated check-in/scheduling/documentation</td>
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</tbody>
</table>

AADE16
Additional Resources to DSME
- Nutritional Medicine
  - Food models
  - Reinforce information given
  - One-on-One appointment to assist in meal planning
- Pharm-D
  - Provide pharmaceutical care to patients
  - Review current medications for each patient
  - Provide additional drug information and education

Patient Survey Data

Provider Experience—Means
- Overall satisfaction was high: 5.24 on 6pt scale
- All 25 responses stated they would organize another class in this format

Provider Issues—Means
- Some issues with audio/video reported.
- Four reports of difficulties in setting up technology early in the process. They are now resolved.

Patient Experience: No Significant Differences
Race/Ethnicity by Site

- Caucasian: 47.1%
- Hispanic: 27.5%
- African American: 16.8%
- Asian/Pacific Islander: 8.6%

No Significant differences

Diabetes-Related Distress at Baseline and Completion (n=73)

- Interpersonal
- Regimen-related
- Physician-related
- Emotional
- Total

No Significant differences

Knowledge at Baseline and Completion for all Participants (n=76)

- Medication
- BG Monitoring
- Foundational
- Healthy Eating
- Reduce Risk
- Activity

No differences by gender

Women and DDS-17 (n=30)

- Interpersonal
- Regimen-related
- Physician-related
- Emotional
- Total

*p<0.05

No Significant Differences in Patient Experience

- Overall Satisfaction
- Picture easy to see
- Felt part of the class
- Understood information
- Comfortable taking the class

No Significant differences
Significant Differences in Patient Experience (n=289)

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<th>Question</th>
<th>AADE16</th>
<th>RAFB</th>
<th>WIMAC</th>
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</thead>
<tbody>
<tr>
<td>Comfortable asking questions**</td>
<td>69.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I could hear the educators well*</td>
<td>93.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Convenient**</td>
<td>96.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Convenient**</td>
<td>82.2%</td>
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</tbody>
</table>

Phase 2

Fall 2016
- Expand to 5 MTFs
Goals:
- Refine Disease Manager training program
- Identify and solve technical issues
- Resolve documentation issues
Challenges:
- Staffing

Future

Proof of effectiveness
- Justify staffing to provide the program
- Become the standard of care in the AFMS
- Potential to expand throughout the DoD where recognized DSME programs are not available

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