BASICS OF INSULIN PUMPS

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SPEAKER DISCLOSURES:

Contracted trainer for Animas, Omnipod, Medtronic
Dexcom Advisory Board
Sanofi Advisory Board
Sanofi Contracted Speaker
Dexcom Contracted Speaker

VERBAL DISCLOSURE: I WILL NOT PROMOTE ANY PRODUCT
INTENDED AUDIENCE

• RD’s
• RN’s
• MCHES
• Pharm
• CDE’s
• No pump experience or basic knowledge of one product only

OBJECTIVE:

1. PROVIDE OVERVIEW ON INSULIN PUMPS
2. PROVIDE HANDS ON KNOWLEDGE
3. CHALLENGE PERSONAL COMFORT, LIMITATIONS AND POTENTIAL BIAS
4. FIND YOUR VOICE ON MEDICAL TEAM FOR RECOMMENDATIONS
BUT.. THE REAL PURPOSE:

• Brace yourself – Here I go on my soap box..
• Diabetes technology is moving fast!
• Diabetes therapies are moving fast!
• Increase in diabetes prevalence (really?)
• Earlier diagnosis of type 2 diabetes -> longer duration -> increased beta cell failure -> pump candidates
• Consumer driven needs and wants - CKOTB
• Role on medical team as a diabetes educator –
• EDUCATOR....
DIABETES EDUCATORS: CALL TO ACTION

• Where is your knowledge base?

• Just because there is ‘a lot of diabetes to go around’ does not mean you have guaranteed employment
  • Payment models for PCP’s
  • Reimbursement
  • Your value you bring
  • Self marketing

MARKET YOURSELF TO NOT JUST BE A MEMBER ON THE DIABETES TEAM; BE A VALUEABLE MEMBER!

- KNOW YOUR MEDS BETTER THAN MOST
- KNOW AND EMBRACE TECHNOLOGY – LEARN LEARN LEARN
- EDUCATE PATIENTS WITH CURRENT AND FUTURE POTENTIAL THERAPIES IN A POSITIVE, SUPPORTIVE LIGHT
- BE THE DIABETES EXPERT FOR YOUR PATIENTS AND A PRICELESS RESOURCE FOR YOUR REFERRING PROVIDERS
SWITCHING GEARS – CLINICAL INERTIA:

• An interactive exchange for what prevents patients from advancing to next therapy/treatment and reaching personal and health goals
CLINICAL INERTIA FROM THE CDE:  
WAIT. WHAT? NOT US.

• If you have a “favorite pump”
  • Why is it your favorite? Is it the one you know the best?

ALTERNATE QUESTION: WHAT IS THE BEST PUMP FOR MY PATIENT? HOW CAN I SUPPORT THEIR CHOICE?
WHO CAN DO PUMP STARTS

- CPT – What does this mean?
- CDE
- RN
- RD
- PHARM
- EX PHYS
OVERVIEW OF INSULIN PUMP THERAPY (CSII)

WHAT IS YOUR FAVORITE INSULIN PUMP?
• quick overview of pump technology from inception to AP
PATIENT SELECTION

• Setting expectations
• Risk/benefit
• Individualized criteria
CREATIVE PUMPING: OFF LABEL

- Flat meal dosing/no carb counting
- Meal size pre-sets
- U200
- U500
- Bolus only
PUMP THEORY: TAKING PATIENT FROM MDI TO CSII PDQ

- Definitions:
- Basal – basal insulins
- Bolus – RAI’s
- TDD
- ICR
- ISF
- Targets
PUMP SELECTION

Criteria for pump selection

Insurance coverage of pump and supplies
Patient choice
Dexterity
Vision
Age
Technology
CGM interface
PUMP A: FEATURES

• I. With remote bolus ability
  • High contrast color screen
  • 100% waterproof at 12 feet for 24 hours
  • Ability to remote bolus discreetly and conveniently through the meter remote, no need to touch the pump

II. With CGM

Same features as above
Integrated with Dexcom G4 CGM
Color coded trend arrows and lines show the direction and the rate of change
IOB displayed on CGM home screen
Bolus recommendation is auto populated
CGM cloud sharing ability with separate receiver
FDA approved version with Dexcom G5 BlueTooth
PUMP O: FEATURES

- Tubeless: no need to disconnect for showers or activities
- Holds up to 200 units – change pod every 2-3 days
- Small/discrete
- Remote blousing with and integrated bg meter
- Waterproof pod
- Angled insertion
- Automated priming and cannula insertion.
- No need to see or handle a needle for insertion
PUMP M: FEATURES

- Integrated system w/ CGM
- Screen options and menu map are easy to navigate
- Basal reduction based on predictive hypoglycemia sensor data
- More to come
PUMP T: FEATURES

- High contrast color screen
- Software based platform that can be remote updated during warranty
- Built in Bluetooth radio capable of communicating with more than one device at a time and future technologies
- Integrated with Dexcom CGM sensors
- Rechargeable battery, using micro USB port
- Smallest insulin delivery increments available (0.1 u/hr with adjustments of 0.001 u)
- Durable housing with shatter resistant glass
- Small and compact size
MAKING THE RECOMMENDATION

- Verbage
- Supporting the patient
- Supporting the provider
- Knowing your clinical reps
- Shadowing other CDE's
THE RECOMMENDATION

“Based on X, Y, Z your patient would benefit from _____ pump. We reviewed his/her insurance coverage, patient choice of pump features and usability. Special consideration was given to _____”
THE PUMP START

Physician order
Calculations TDD to basal rates
  Formulas
ICR
  Formulas
ISF
  Formulas
Other considerations
PATIENT FOLLOW UP AND PUMP ADJUSTMENTS

- Timing
- Process
- Techniques
- Protocols
DOWNLOADS AND UPLOADS

• Pump products and software
• Web based or software based
• IT?
• HPAA?
• What to look for, understand and recommend in data
CGM

- CGM w/ pumps
- Where we are today with products
- Where we are going
- SAP now
PETTING ZOO

• 15 minute rotations at each pump manufacture site.
• Each site will have a task
• You will be exposed to all manufactures currently on market
• Case studies
• Contact info for clinical reps for inquiries on certification or pump functionality
WRAP UP: PETTING ZOO AND FUTURE

- Which is your favorite pump?
- More to learn: become certified
- Advanced pump
- CGM
- More on uploads and downloads
THANK YOU!

Special Thanks to CDE’s assisting at demo tables!
• Putting Your Patients on a Pump. Karen Bolderman RD/CDE
• Pumping Insulin. John Walsh PA, Ruth Roberts, MA