

Assessing Medical Providers' Knowledge of

American Diabetes Association (ADA) Guidelines

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Research Introduction

- Collaborated with a faculty member and a medical resident who both work at the Fort Collins Family Medicine Residency Program
- Interested in the compliance with American Diabetes Association (ADA) guidelines for the treatment of Type 2 Diabetes Mellitus
- We constructed a survey that was distributed to practitioners at the clinic to assess their current awareness of the ADA guidelines

Diabetes Overview

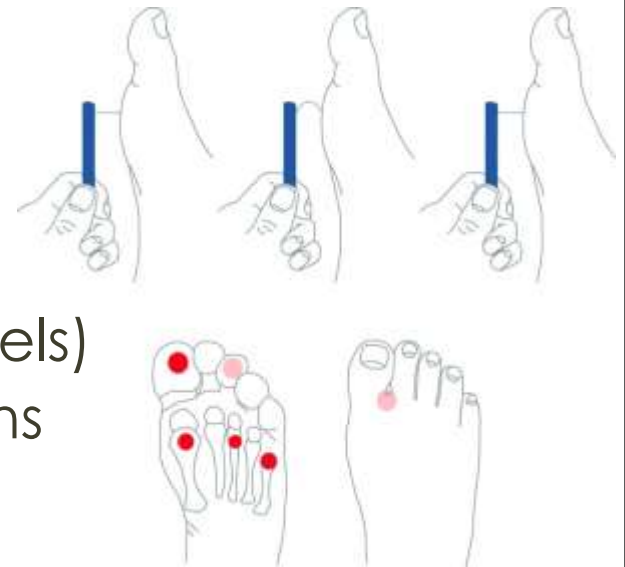
- A disease that occurs from an elevation in blood glucose
 - ❖ Type 1 – General deficiency of insulin in your body
 - ❖ Type 2 – General resistance to insulin in your body
 - ❖ Gestational – Develops during pregnancy
- Diabetes can lead to further health complications

Diabetes Statistics

- 9.3% of the U.S. population has diabetes
 - ❖ 90-95% of all diagnosed cases are type 2 diabetes
- Diabetes is the 7th leading cause of death in the U.S.
- Leading cause of non-traumatic lower limb amputations in the U.S.
- 1 in 5 people with diabetes has:
 - ❖ Vision problems
 - ❖ Kidney disease
- 1 in 4 people over the age of 65 has diabetes
- In 2012, diabetes had a total healthcare cost of \$245 billion
 - ❖ 20% of health care spending is for people diagnosed with diabetes

Diabetes Mellitus

- The ADA provides yearly guidelines for recommendations to manage diabetes care in patients.
 - ❖ Vaccines
 - ❖ Exercise
 - ❖ Blood pressure
 - ❖ Blood sugar (HbA1C, glucose levels)
 - ❖ Monitoring for other complications
 - ❖ Etc



Survey Setup

- We decided to create a 10 question short answer survey based entirely on the 2016 ADA type II diabetes guidelines
- We distributed this survey to a variety of practitioners and residents at the medical clinic
- Purpose was to see if there was any need for further education or further steps to help with the regular use of the guidelines
- Completed CITI Training in order to prepare for research with hands on information of patients
- IRB was obtained through the health system

Survey

2016 ADA Guidelines Quiz

I am a/n: R1 R2 R3 Attending NP Student

1. What is the exercise recommendation for patients with diabetes?
2. What is the goal A1c for most patients with diabetes?
3. How often do you check an A1c for diabetic patients **at goal**?
4. What is the target blood pressure for most patients with diabetes?
5. How often does a diabetic patient need an eye exam if they **do not** have retinopathy?
6. How often do you need to check urine albumin in a type 2 diabetic with **no** kidney disease?
7. How often do microfilament exams need to be performed?
8. What 3 immunizations are recommended for patients with diabetes?
9. What are the recommended blood glucose levels; fasting and 2 hour post-prandial?
10. What are the 3 annual labs recommended for diabetes patients?

Survey Questions - American Diabetes Association Recommendations

- 1-Exercise recommendation with diabetes
 - ❖ Recommended at least 150 minutes each week of moderate-intensity aerobic activity
- 2-Goal HbA1c for most patients with Diabetes
 - ❖ Less than 7%
- 3-How often do you check the HbA1c in patients who are at goal levels?
 - ❖ Two times a year

Survey Questions - American Diabetes Association Recommendations

- 4-What blood pressure is the goal for most patients?
 - ❖ <140/90
- 5-How often do you perform an eye exam in a patient if they do not have retinopathy?
 - ❖ Every two years
- 6-How often do you need to check urine albumin in a type 2 diabetes patient with normal kidney function?
 - ❖ Every year
- 7-What 3 immunizations are recommended for diabetic patients?
 - ❖ Influenza, Pneumococcal polysaccharide vaccine 23, and Hepatitis B

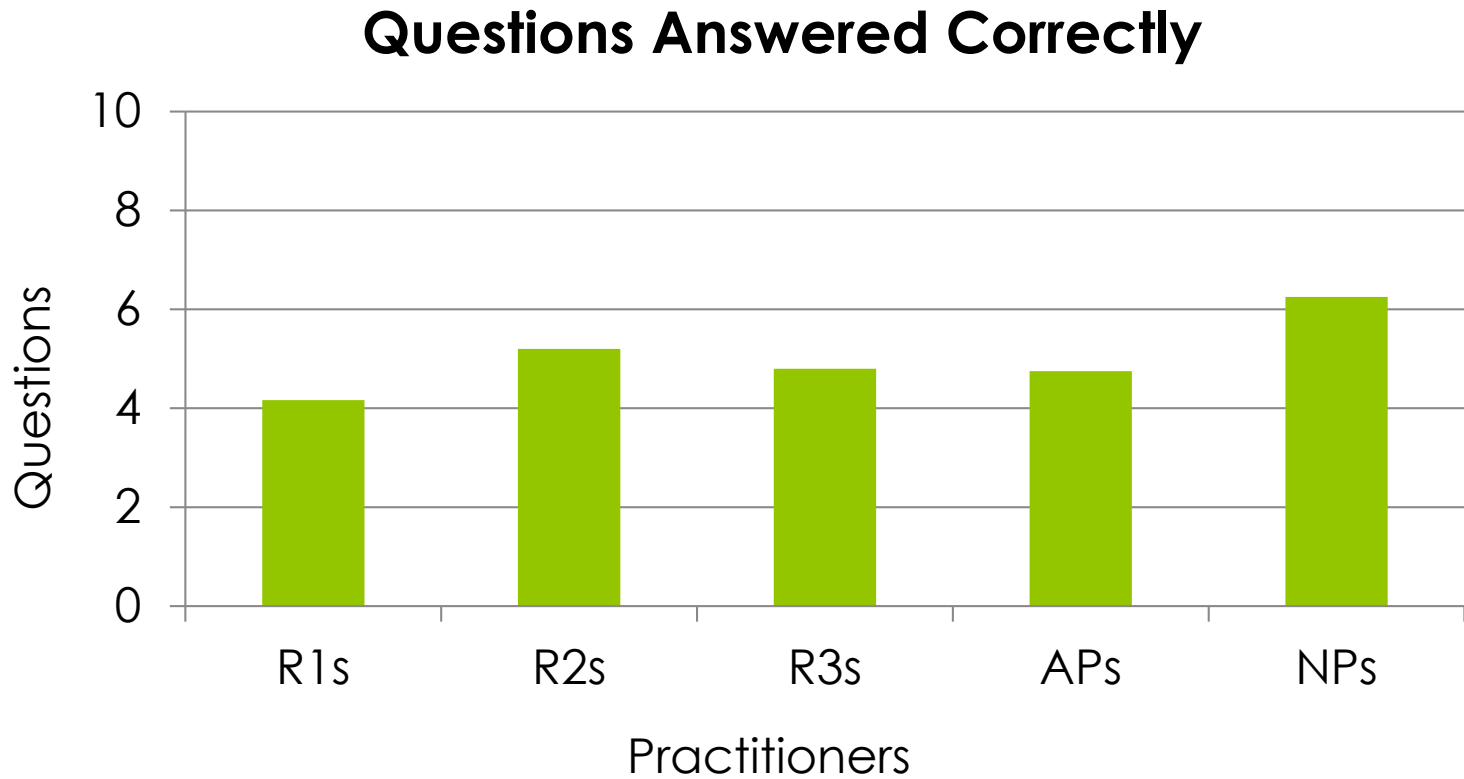
Survey Questions - American Diabetes Association Recommendations

- 8-How often do you perform microfilament exams on patient?
 - ❖ Every year
- 9-What are the recommended blood glucose levels? Fasting and 2 hour post-prandial?
 - ❖ Fasting: less than 130 mg/dL
 - ❖ 2 hour post-prandial: less than 180 mg/dL
- 10-What are the 3 recommended annual labs?
 - ❖ HbA1c, BMP, urine microalbumin: creatinine ratio

Survey Results

- Survey was distributed to 35 possible practitioners to fill out
 - ❖ 6 NPs, 20 residents, 9 attending physicians
- Received 28 returned surveys (80% response rate)
 - ❖ 4 NPs, 16 residents(6-R1, 5-R2, 5-R3), 8 attending physicians
- Average score for all 28 respondents was a 5/10
- NPs scored highest and R1s scored lowest

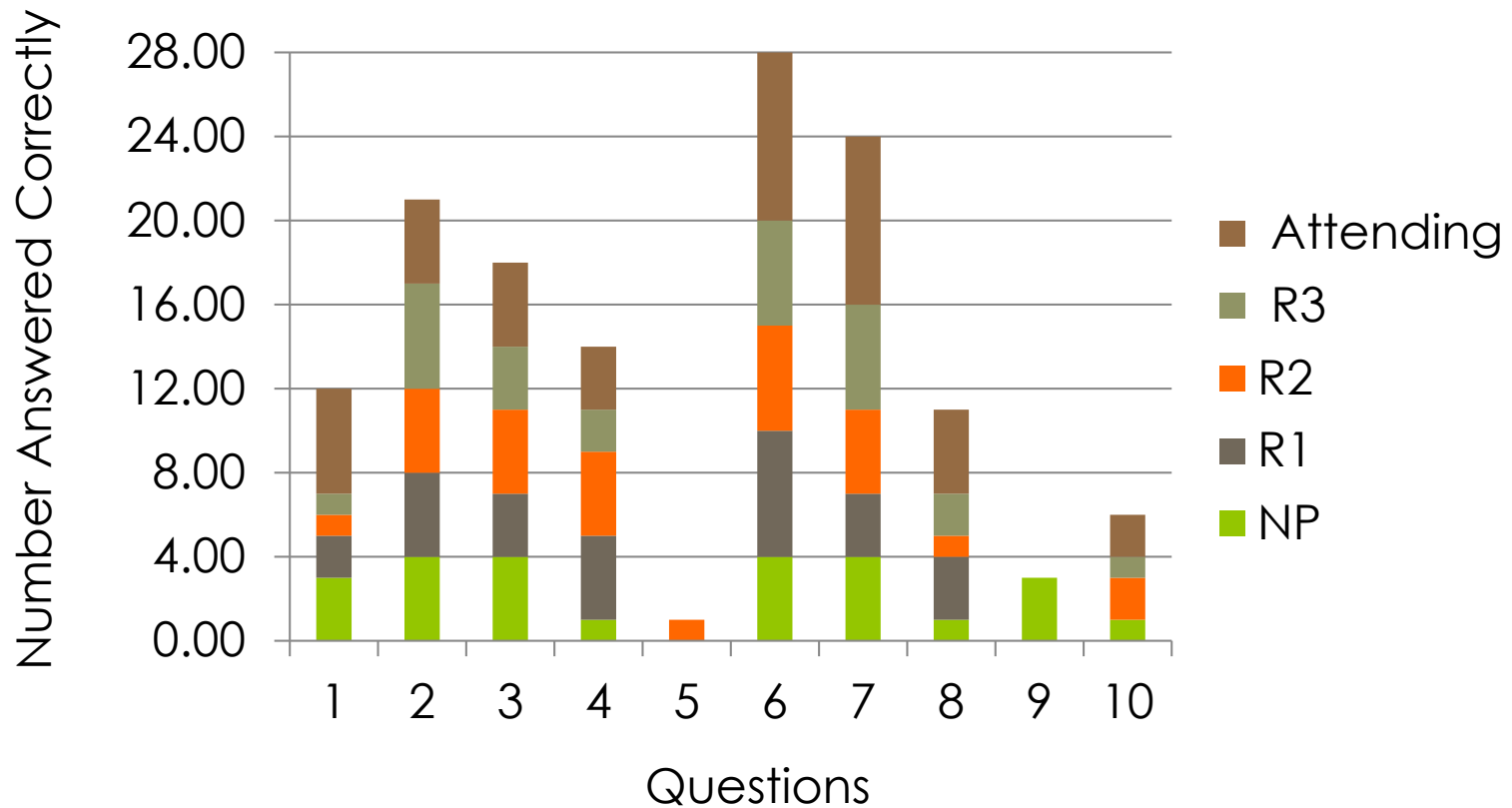
Questions by Group



Individual questions

- Looked at the data to assess what questions were easiest/hardest to answer correctly
- Questions 6, 7, and 2 were the easiest respectively
 - ❖ Answered rates of 100%, 86%, and 75%
- Questions 5, 9, and 10 were most difficult respectively
 - ❖ Answered rates of 4%, 11%, and 21%

Questions answered correctly out of the 28 respondents



Responses to Survey

- The first six questions had one single answer and had slightly higher response rates
- Questions 7, 9, and 10 had multiple parts to the question, so if one aspect was wrong the entire question would be counted wrong
- The research went well with the high response rate and looking at the data collected

Moving Forward with this Data

- The survey results were quite low with only a 50% average
- We thought it would be helpful to implement DOT phrases for the practitioners to use when documenting patient visits
 - ❖ DOT phrases are used in the computers to pull up templates of information that health care users can use as a starting point when documenting on patient charts

Example DOT Phrase

SmartPhrase Editor


Name:

Log events?

ID: 319561

Content **Owners & Users** Synonyms

Rich text (bold, italics, etc.)

 Do not include PHI or patient-specific data in SmartPhrases.



1 2 3 4 5 6 7 8 9 10

Current Meds

Oral: ***
Insulin: ***

Most Recent A1c – Goal < 7% (for most patients)
(Monitor every 3 months if not at goal. Twice a year if at goal)
@SHORTLAB(A1CGLYCOHEM,HGBA1C,HGBA1)@

Goals for each visit

BP (goal <140/90 for age < 79, 150/90 for age > 80, 130/80 with microalbuminuria)
@LASTBP(3)@
@BMI@
BG Record (fasting 80-130, postprandial <180): ***
Hypoglycemic events (BG < 70): ***
Exercise (150min/week moderate intensity-aerobic activity; resistance training at least 2 times/week): ***

Annual Screening

Flu vaccine: *** date
Eye exam (every year w/retinopathy, 2 years w/o retinopathy): ***
Foot exam (yearly, consider every 3-4 months if peripheral neuropathy - include skin inspection, deformities, monofilament, pulses): ***
Neuropathy (autonomic and peripheral): ***
Kidney function (will need more frequently with CKD)
 urine albumin:creatinine: ***
 Cr: ***
 eGFR: ***
Electrolytes: *** date
Lipids:
@SHORTLAB(CHOLESTEROL, CHOL SERUM,HIGHDENSITY,DATAONV294,TRIGLYCERIDE,LDLTRIGINT,LOWDENSITY2,LCLCHOLCAL,LDLHDLRAT,LDLCHOLMEAS,CHOLHDLRA)@
Depression: *** PHQ2


Standards of Care

PPSV 23 – once between 19-64. Booster after age 65 (at least 5 years after previous dose): ***
Hep B Confirm titers (if negative rec 3 dose series ages 19-59. Ages > 60 depending on risk): ***
Tobacco use: @TOBHX@
ASCVD 10 year risk: ***
ASA 81mg (CVD risk >10%, M > 50, W > 60): ***
Statin (high dose w/CVD risk): ***
ACE INHIBITORS (with ACE > 20): ***

Insert SmartList:

Connection logic in this SmartPh

Show label in this SmartPhras

 Add to S

Short Description

(250 characters max.)

[Populate from SmartPhrase text](#)

Diabetes 2

Open

Accept & Stay

Accept

More questions

- There could be associations between the amount of time spent directly with patients to the knowledge of the current guidelines
- Looking into if the use of DOT phrases improves the knowledge of guideline recommendations in practitioners

References

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