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## VOLUME 2 – ISSUE 5: TRANSCRIPT

# Improving Patient-Centered Care in the Clinic

Our guest author is Susan Porter, MSN, CRNP, CDE, MHS at the Johns Hopkins University School of Medicine in Baltimore, Maryland.

After participating in this activity, the participant will demonstrate the ability to:

- Explain how diabetes education and psychological support can encourage patient empowerment.
- Differentiate between modifiable and non-modifiable patient factors that affect how glycemic treatment goals should be determined.
- Identify key steps clinicians can take to better achieve a patient-centered care approach.

This discussion, offered as a downloadable audio file and companion transcript, covers the important topic of improving patient-centered care in the clinic in the format of case-study scenarios for the clinical practice. This program is a follow up to the [Volume 2, Issue 4 eDiabetes Review newsletter – Patient-Centered Care – Translating Theory into Action.](#)

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### Faculty Disclosure

Susan Porter has indicated that she has no financial interests or relationships with a commercial entity whose products or services are relevant to the content of this presentation.

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**BOB BUSKER:** Welcome to this eDiabetes Review Podcast.

Today's program is a follow-up to our newsletter on *An Evidence-Based Approach to Patient-Centered Care*. With us today is that issue's author, Susan Porter, a clinical nurse practitioner and certified diabetes educator from the Johns Hopkins University School of Medicine.

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Learning objectives for this audio program include:

- Explain how diabetes education and psychological support can encourage patient empowerment.
- Differentiate between modifiable and non-modifiable patient factors that affect how glycemic treatment goals should be determined.
- Identify key steps clinicians can take to better achieve a patient-centered care approach.

Susan Porter has indicated that she has no financial interests or relationships with any commercial entity whose products or services are relevant to the content of this presentation. She has also indicated that her discussion today will not reference the unlabeled or unapproved uses of any drugs or products.

I'm Bob Busker, managing editor of eDiabetes Review. Susan Porter, thank you for joining us today.

**SUSAN PORTER:** Thank you for having me, Bob. I'm excited to take part in this discussion.

**MR. BUSKER:** Patient-centered care — it's one of those things that seems like a great idea but has been very difficult for many clinicians to achieve in actual practice. In your newsletter issue, you reviewed some of the recent investigations that are providing evidence to help providers develop patient-centered diabetes care approaches. Today I'd like to focus on how some of that new information can be translated into clinical practice change. So if you would please, Susan, start us out with a patient scenario.

**SUSAN PORTER:** HH is a 77 year old obese male who presents to the diabetes center for his initial visit. He has a 20 year history of poorly controlled type 2 diabetes with a HbA1c of 11.3%, hypertension, and hyperlipidemia. He's currently taking glargine 50 units which he started after he failed to obtain adequate control on multiple oral agents. He checks his fasting blood sugar daily and reports they are most often between 100 and 180. He thinks he is on too much insulin, because occasionally he feels shaky and sweaty in the morning with a fasting glucose of 100. He admits to sometimes decreasing or even skipping his glargine. He expresses frustration with his high HbA1c, stating, "I don't know why my HbA1c is so high when my glucose levels are good when I check them."

**MR. BUSKER:** His FPG is 100. But he says he feels shaky and sweaty — symptoms of hypoglycemia. What do you think is going on? Why is he having those symptoms?

**SUSAN PORTER:** I think he's getting the hypoglycemic symptoms at a normal glucose level because his diabetes has been out of control for so long. Patients often will experience hypoglycemic symptoms at a normal glucose level of 100 because they've been running so high for so long. He doesn't seem to have a good understanding of how to use the glargine, and he doesn't know why his diabetes is out of control when his fasting glucose levels are good. There's clearly some deficit in his understanding of his diabetes. It's also concerning that he has this poor control but stopped a lot of his oral agents.

**MR. BUSKER:** Interesting observation. So what was your initial management recommendation for this patient?

**SUSAN PORTER:** My initial recommendation was that he start aspart 5 units with each meal, continue his glargine 50 units daily, and have a follow-up visit in six weeks.

**MR. BUSKER:** All right — so it's now 6 weeks later and he comes back for his follow-up visit. What's going on with this patient now?

**SUSAN PORTER:** He presents with his follow-up without his glucometer and reports that his fasting blood sugars have not changed. When asked about his

response to the aspart he stated “I didn’t start it because when I check my blood sugar in the morning it’s always good, so I didn’t think I needed it.” At this point I explained to HH how glargine is improving his control and that is evident by his fasting blood sugars, but clearly his postprandial control is poor, hence an HbA1c of 11.3%. And I explained the difference between basal insulin and prandial insulin.

Again, we discussed the same plan of care to start aspart 5 units with each meal and planned for follow-up in another 6 weeks. I also suggested he restart metformin 500 mg two times daily. He was resistant at first, stating “It didn’t work for me last time, so why would it work for me this time?” After I educated him on the use of metformin with respect to insulin resistance and how it should continue to be used even after initiating insulin, he agreed to start it.

At this point I reviewed the basics of type 2 diabetes and the importance of obtaining good control and realized that HH had never received this formal education. I spent the rest of the visit educating him and provided written education material. I encouraged him to attend one of the diabetes center education classes and referred him to the dietitian.

**MR. BUSKER:** Caring for this patient is very challenging. He seems to know a couple of facts about glycemic control — like his morning FPG — but he’s insistent on drawing incorrect conclusions about what it all means in regards to his overall glucose management.

**SUSAN PORTER:** This was a perfect opportunity to point out to him how the HbA1c of over 11% does not match his fasting blood glucose levels of 100 to 180. If he had brought his glucometer with him to the visit we could have printed out his glucometer, and it would have presented a graph that clearly showed the deterioration of his glycemic control during the day.

**MR. BUSKER:** You said you started educating him on the basics of type 2 diabetes. What were the key areas you focused on?

**SUSAN PORTER:** I focused on the difference between basal insulin and bolus insulin. I discussed that basal insulin given once a day is designed to really help control his fasting glucose levels, and the bolus insulin given before meals helps control his glucose levels in response to his meals. We discussed why they are

both needed in his case. I also spent time educating him on the use of metformin and the whole concept of insulin resistance and why it’s important to treat his insulin resistance, because even though he is already on insulin, it’s still helpful to keep the metformin going.

**MR. BUSKER:** Let’s continue with this patient, Susan. You’ve given him some education, maybe convinced him to resume metformin. When he comes in for his next follow-up, how is he doing?

**SUSAN PORTER:** At his three-month follow-up appointment, his HbA1c had dropped to 8% and he had lost 13 pounds. He reports he had followed up with the dietitian and found the appointment very helpful. He was compliant with taking the aspart 5 units before each meal and a glargine at bedtime and was continuing the metformin. When HH heard the result of his HbA1c, he was so proud of himself stating, “This is the first time I’ve seen it out of the double digits. I know I can do this.” I asked him what he felt changed to result in his improved control, and he stated “I realize the importance of getting my diabetes under control and discovered decisions I was making with regards to diet and taking my medications was interfering with that goal. I never realized that I had so much control over my diabetes.”

He was also happy to report that he had been exercising and walking three to four times a week. At this visit I adjusted his aspart and implemented a correction scale and continued his glargine and metformin at the current doses. I also provided him an application for a smart phone, which can be used between visits to give him feedback on his diabetes and glycemic control. He was happy at the end of the visit and stated “Now I know I can do this. Next time you see me I will be even closer to my HbA1c and weight loss goals.”

**MR. BUSKER:** What you’ve described is a major change in this patient’s compliance as well as in his attitude. Give us your analysis here, if you would please. The aspart — why do you think he finally started taking it?

**SUSAN PORTER:** I think he finally started to take aspart because he was asked about his reasoning for not taking it. Perhaps he felt like in the past his opinion never really mattered. It also was discovered that definite gaps in his knowledge existed about

type 2 diabetes. As we found, according to the DAWN-2 study, often patients do not receive formal education, and once they do they find that it's very helpful, and that was evident in this case. He had never received formal diabetes education, and then once he did he found it very helpful and it helped his control. We spent time reviewing the basics of diabetes and didn't just assume that he knew all this information. We took a multidisciplinary approach with the dietitian, the diabetes educator, and the endocrinologist, and together we were able to make a difference in his control.

**MR. BUSKER:** And that major change in his attitude?

**SUSAN PORTER:** I think what helped is that he realized he had control over his diabetes. He also felt empowered, and according to the findings in the BENCH-D study, empowerment is associated with better glycemic control and better psychosocial functioning. This empowerment and education allowed me to implement a correction scale to improve his control even further, something I felt could have benefitted him at previous visits, but he would have been either overwhelmed or confused with that information. I think the education materials that I provided him, the written education, and the office visits with the dietitian and the formal diabetes education class, along with the app for his phone, also improved his knowledge and improved his control.

**MR. BUSKER:** So the core concepts of patient-centered care — empowering patients through education and through including them in the decision-making process — that's what made the difference with this patient. Is that an accurate summary?

**SUSAN PORTER:** Yes, it's a definite accurate summary in this case.

**MR. BUSKER:** And we'll return with Susan Porter from Johns Hopkins in just a moment.

**BOB BUSKER:** Hello. This is Bob Busker, managing editor of *eDiabetes Review*.

If you found us on iTunes or on the web, please be sure to subscribe. This podcast is part of Johns Hopkins *eDiabetes Review*, a new educational program providing monthly activities certified for CME credit and nursing contact hours, with expert

commentary and useful practice information for clinicians treating patients with type 2 diabetes.

For additional information, or to subscribe to receive our newsletters and podcasts without charge, please visit [www.ediabetesreview.org](http://www.ediabetesreview.org). Thank you.

**MR. BUSKER:** Welcome back to this *eDiabetes Review* podcast. I'm Bob Busker, managing editor of the program. Our guest is Susan Porter, a clinical nurse practitioner and certified diabetes educator at the Johns Hopkins University School of Medicine. We've been discussing Patient-Centered Care, and how some of the new information Susan presented in her newsletter issue can be applied in clinical practice. So let's continue, if you would please Susan, with another case scenario.

**SUSAN PORTER:** RF is a 53 year old woman with a five-year history of type 2 diabetes, hypertension, and hyperlipidemia. RF has been followed in the diabetes center for the past three years. She is currently on multiple daily injections of basal/bolus glargine and aspart combination and liraglutide without adequate control.

Over the past three years her HbA1c has ranged from 8.0 to 9.7%. She has been very compliant with her every three-month follow-up visits, which alternate between me and the endocrinologist. She always appeared engaged at her visits by asking appropriate questions and verbalized understanding of the plan of care discussed, and would bring her glucometer to every visit.

**MR. BUSKER:** This sounds like a patient who's really looking for control, but she's not finding it. Not with the way her A1c ranges from 8.0 to 9.7%. First question: what A1c goal would you set for her and why would you set that goal?

**SUSAN PORTER:** Based on the ADA guidelines and the position statement on managing hyperglycemia using a patient centered approach, I would like to see her HbA1c at less than 7%. She's a 53 year old female with no history of cerebrovascular disease or coronary artery disease, which would both be examples of non-modifiable risk factors that would influence her glycemic target. She is motivated to improve her control and appears to have the support and resources needed, and these are both examples of potentially modifiable risk factors.

**MR. BUSKER:** Tell us about your approach to this patient.

**SUSAN PORTER:** Since RF was already on multiple daily injection, the approach to improve her control was mainly to adjust her insulin. Each visit her glucometer was downloaded, trends were identified and discussed, and her insulin was adjusted appropriately. The problem was that her control never really improved and new trends would be identified with her glucometer at each visit. It became evident that there was a disconnect between the plan of care prescribed and what RF was taking. I started to explore this with her and she assured me that she was taking her insulin exactly as prescribed and she did not understand why there was so much glycemic variability. Finally, after digging deeper and reviewing her glucometer, she admitted to missing several doses of her aspart and glargine. She stated that sometimes my blood sugar is good and I don't take it, or I just get tired of having to inject myself so much. At this point we explored different approaches together and decided to try decreasing to just two injections using aspart 70/30.

**MR. BUSKER:** And did the aspart 70/30 help her?

**SUSAN PORTER:** Unfortunately, at her follow-up visit it was discovered that this did not improve her control or her compliance. She expressed a lot of frustration about having to take multiple daily injections, and again we explored other options and decided to try a disposable insulin delivery device which would give her a preset basal rate for 24 hours and she could deliver a bolus dose of up to 12 units at each meal with just the press of a button. This will allow her to get her insulin without having to give multiple injections throughout the day.

**MR. BUSKER:** Let me interrupt you for a moment, Susan. Noncompliance, as you finally discovered, was a key factor in this patient's lack of control. Why do you think it her so long to admit that she wasn't following her insulin regimen?

**SUSAN PORTER:** It's difficult to know exactly why it took her so long, but perhaps she was afraid to admit that she was not following the plan I had prescribed. At her visits with the endocrinologist and me, we went right into adjusting her insulin and never really asked for her input on her plan of care. Likely she didn't realize that she had other options, and had we been

able to use a tool such as the patient decision aid tool, similar to the one I had discussed in my review, maybe she would have realized that she had other options and would have admitted that she wasn't following our plan as prescribed a lot earlier.

**MR. BUSKER:** So these other options you prescribed for her — how effective were they?

**SUSAN PORTER:** At her three-month visit her HbA1c was down to 7.3%. She was happy with her improvement and her compliance had improved. We reviewed her glucometer printouts, and she was able to see how her control was now more stable throughout the day, with less glycemic variability. When she saw her glucometer printout at this visit, she expressed how powerful it was for her to see this. She realized how important it was to take her insulin as prescribed, as it not only lowered her blood sugar, it also helped to keep it more stable throughout the day. She realized that she had the tools to control her diabetes, and no matter if she continues on the disposable insulin device or multiple injections, she realized she was in control of her diabetes.

**MR. BUSKER:** When she saw her glucometer printout, it was, as you said, very impactful for her. Why do you think seeing her printout had that effect? And is this something you've commonly seen in other patients who bring their glucometers to their appointments?

**SUSAN PORTER:** Yes, this is common. When patients actually see their glucometer printouts and see what's happening throughout the day in response to taking their medications, it often can motivate them to improve their control. In this case it was very powerful. She realized she was in control of how her glycemic control varied throughout the day; she felt empowered. The BENCH-D study findings support that patients that feel empowered, and their glycemic control improves, as well as their psychosocial functioning.

**MR. BUSKER:** Susan, I know you had very specific reasons for presenting this particular patient to us today. So please, share that with us.

**SUSAN PORTER:** I presented this patient as because I know we are seeing a lot of patients like RF each day. They appear to be following our plan because that's what's prescribed, but, in fact, they really aren't. Her poor control was because the plan that I had

prescribed did not fit what she was willing to live with. So we had to get creative and get the patient's input on a plan of care that she was able to live with to improve her glycemic control. This is a good example of patient-centered care and shared decision-making, which is endorsed by the ADA and the European Association for the Study of Diabetes.

As I mentioned earlier, patients like RF could benefit from patient decision aids, and hopefully there will be more development in this area in the future.

**MR. BUSKER:** Shared decision-making — understanding what the patient is willing to live with and developing their therapeutic regimen around that — that's another critical building block of patient-centered care. So thank you for that case and discussion, Susan. Now let me ask you to bring us another patient now, if you would please.

**SUSAN PORTER:** TS is an 82 year old male who was referred to the diabetes center after his recent hospitalization for cerebrovascular accident. He has a medical history of hypertension, hyperlipidemia, coronary artery disease, status post CABG 15 years ago, and stage 3 chronic kidney disease. His HbA<sub>1c</sub> is currently at 6.4%. He is taking insulin glargine 38 units daily and aspart 10 units before each meal. He is accompanied by his wife and daughter, who will be helping him with his diabetes care because of his left-sided weakness as a result of the recent CVA.

His wife is very knowledgeable about his disease, as she has been involved with his care over the past 10 years. She expressed pride in how she has been able to keep his HbA<sub>1c</sub> under 7% since his CABG 15 years ago. She brought his glucometer to his visit today. It shows an overall glucose average of 134 with a few episodes of hypoglycemia while fasting. After reviewing his glucometer and HbA<sub>1c</sub> results, I recommended that TS decrease his glargine to 34 units and his aspart to 8 units before each meal.

**MR. BUSKER:** His recent CVA — what impact would that have on his glycemic control?

**SUSAN PORTER:** With his recent CVA it's important that we prevent hypoglycemia. His recent CVA, along with his advanced age, puts him at increased risk for complications with hypoglycemia. Results from large clinical trials such as the ACCORD trial suggest that being overly aggressive with glycemic control in older

patients with more advanced disease may not have significant benefits and may, indeed, present risk.

**MR. BUSKER:** So with that in mind, what should his A<sub>1c</sub> target be?

**SUSAN PORTER:** I would target his A<sub>1c</sub> at 7.5%. Per the ADA and the EASD guidelines, it's important that we take a patient-centered care approach to control; it's no longer the one-size-fits-all approach. His history of the CVA, the coronary artery disease, the chronic kidney disease, and his advanced age are all examples of nonmodifiable risk factors and put him at higher risk of complications from hypoglycemia. With this history and the recommendations by the ADA and the EASD, I would definitely not want to target his HbA<sub>1c</sub> < 7.0%.

My immediate goal was to stop his hypoglycemia episodes, so my glucose targets would be fasting and pre-meal at about 90 to 150 and his postprandial under 180.

**MR. BUSKER:** You decreased his glargine to 34 units a day and his aspart to 8 units before each meal. Was he compliant with your recommendations? Tell us about his follow-up visit.

**SUSAN PORTER:** A few months later at his follow-up visit his HbA<sub>1c</sub> was 7.4%. His glucometer had an average glucose of 166 and no recorded episodes of hypoglycemia. The lowest recorded glucose was 89, which occurred after lunch. His wife reports that happened on a day they took a long afternoon walk. His wife was a little upset with the results, as this was the first time she had seen his HbA<sub>1c</sub> over 7% in 15 years. She does not understand why his insulin had been decreased and is requesting that we increase it back to his previous doses.

**MR. BUSKER:** So you adjusted his insulin, and that helped stop the hypoglycemia. But his wife is upset because his A<sub>1c</sub> is above 7%, which she believes is the appropriate number for him. How do you handle a situation like this?

**SUSAN PORTER:** First I want to acknowledge her dedication and understanding about her husband's condition. It's important to educate her on the risk associated with hypoglycemia because of his advanced age and his recent history of CVA. She is probably feeling very overwhelmed with his recent CVA and

now he's left with left-sided weakness, and we need to provide her the education that will allow her to feel more empowered and to feel she's back in control again.

It's important to remember that we also have to provide the education not only to the patient but also to the caregivers, as they're a very important part of the patients' lives.

**MR. BUSKER:** A good point to keep in mind. Susan. I want to thank you for today's cases and discussion. Let me change gears on you now and ask you to look to the future for us. What needs to happen to increase patient-centered care in people being treated for diabetes?

**SUSAN PORTER:** In the future I see more acceptance of the patient centered care approach. I think many providers are still targeting patients to that A1c goal of less than 7%. They need to get away from that and look at each patient as an individual and determine each one's HbA1c goals. Another improvement is the development of patient decision aids, which I believe can help improve care, especially in a fast paced primary care setting, where a lot of these type 2 diabetics are being treated. More research and development is needed in patient decision aids to make it more mainstream, that's where I see the future going.

**MR. BUSKER:** Thank you for sharing your thoughts. Let's wrap things up by reviewing today's discussion in light of our learning objectives. So to begin: how diabetes education and psychological support encourage patient empowerment.

**SUSAN PORTER:** Diabetes education has been shown to improve self care activities and glycemic control. In many cases, the time needed to provide the necessary patient education is not given. I think it's important that providers know what resources are available either at their facility or within the community for some formal patient education classes.

**MR. BUSKER:** And our second objective: differentiating between the modifiable and non-modifiable patient factors that can affect how glycemic treatment goals should be determined.

**SUSAN PORTER:** Both modifiable and non-modifiable risk factors affect stringency of glycemic

control. CVA, advanced age, disease duration, are all examples of non-modifiable risk factors. A patient's motivation and attitude and available resources are potentially modifiable factors. There is no longer a one-size-fits-all approach with glycemic targets. Glycemic targets must change as patients age and/or develop more modifiable or non-modifiable risk factors.

**MR. BUSKER:** And finally: the key steps clinicians can take to better achieve a patient-centered care approach.

**SUSAN PORTER:** We need to recognize that several treatment choices are available when treating patients with type 2 diabetes, recognize when a treatment plan may have to be modified to meet the patient's needs, or offer choices to patients if appropriate. Whenever possible or feasible, patients should be involved with creating their plan of care for type 2 diabetes.

**MR. BUSKER:** Susan Porter from the Johns Hopkins University School of Medicine, thank you for participating in this eDiabetes Review Podcast.

**SUSAN PORTER:** Thank you, Bob. It was my pleasure being here and I thank you again for inviting me to participate.

**MR. BUSKER:** To receive CME credit for this activity, please take the post-test at [www.ediabetesreview.org/test](http://www.ediabetesreview.org/test).

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