

PAQ[®], a Simple, Wearable Three-day Basal/Bolus Insulin Delivery Device, Designed for Discreetness

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Background and Aims

Peyrot, et. al.¹ revealed that >50% of patients on insulin reported skipping injections. Embarrassment was one of the most common factors contributing to these omissions. To decrease this, as well as other barriers to insulin therapy, CeQur designed a body worn device, PAQ[®], to deliver both basal and bolus insulin for 3-days. Feedback received from adults with diabetes during PAQ development was the importance of discreetness and a key variable to consider was non-detectability under clothing. To this end different colors of the PAQ device were tested for detectability when worn under clothing.

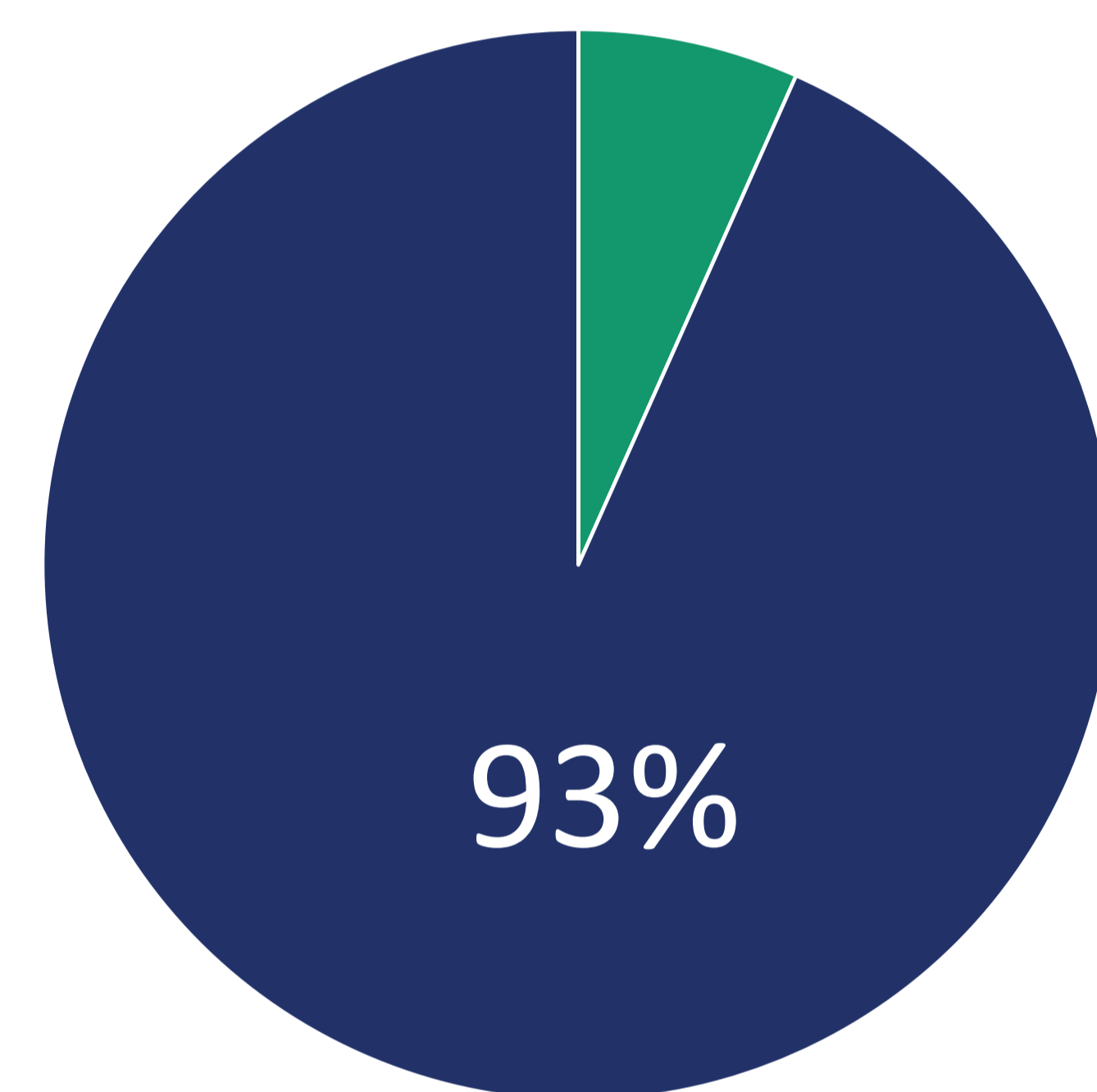
Method

A white colored PAQ and a gray colored PAQ were placed on a body form with a dark and a medium skin tone. See Figure 1. A thin, white t-shirt was placed on the body form covering the devices. See Figure 2. Thirty adults with diabetes taking at least two injections per day of insulin were shown the forms and asked to choose the most noticeable device color. The device labels were different for each skin tone to prevent selection bias.

Figure 1—Body form with 1st and 2nd generation PAQ[®]

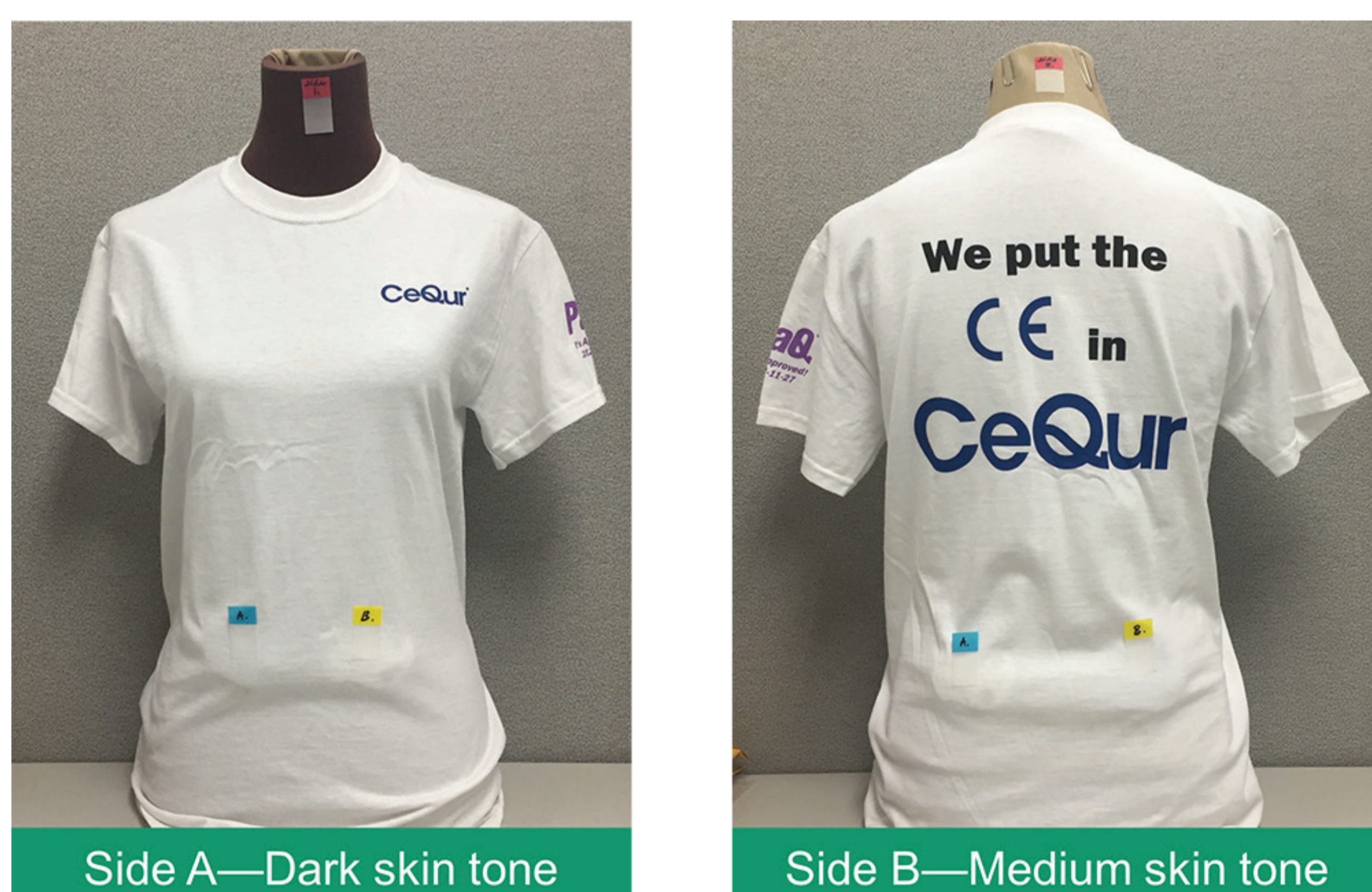


Results



Of the thirty participants, 55% were male, mean age was 52 years with a BMI of 31.7 kg/m². The majority of the participants (28/30, 93%) chose the white PAQ as more noticeable on both the dark and medium skin tone.

Figure 2—Body form with 1st and 2nd generation PAQ[®] with T-shirt



Conclusion

A gray colored PAQ may provide a more discreet insulin delivery option for adults with diabetes with different skin tones.

1. Peyrot M, Rubin RR, Kruger, DF, Travis LB, Correlates of Insulin Injection Omission Diabet Med. 2012 May;29(5):682-689