

SUPPLEMENTARY MATERIAL

Table S1. Autoinjector attributes.

Full attribute wording posed to survey respondents	Abbreviation used in Figures 2 and 3
1. Minimal steps to prepare the autoinjector for use	Minimal steps to prepare autoinjector
2. Autoinjector reminds me when to take my next injection	Reminder function
3. Autoinjector is comfortable to hold during injections	Comfortable to hold
4. Autoinjector has a modern look and feel	Modern look and feel
5. Autoinjector has features to prevent an accidental injection	Prevents accidental injections
6. Ability to adjust the injection speed	Adjustable injection speed
7. Ability to adjust the injection depth	Adjustable injection depth
8. Ability to reach different body sites with the autoinjector	Can reach different sites
9. Ability to use the autoinjector without help from others	Use autoinjector without help
10. Easy to apply the right pressure to start the injection	Easy pressure application to start
11. Easy to push the button to start the injection	Push start button easily
12. Sound of injection is minimal (quiet)	Quiet injection
13. Easy to tell when the injection starts and ends	Know when injection starts and ends
14. Has visual cues that can be easily seen to show the progress of the injection	Visual cues
15. Has audible cues that can be easily heard to show the progress of the injection	Audible cues
16. Ability to know when it is ok to pull the needle out after the injection is completed	Know when to remove needle
17. Autoinjector is intuitive to use	Intuitive to use
18. Injection process is easy overall	Injection process easy overall

Patients were presented with a list of 18 possible autoinjector attributes and asked how important each would be in an ideal autoinjector by rating them from 1 (not important) to 10 (most important) and instructed to only assign the maximum rating of 10 to one attribute. They then rated how their own autoinjector performed across the same attributes, rating from 1 (not well at all) to 10 (very well). Finally, after a BETACONNECT demonstration and “simulated injections”, they rated the BETACONNECT across these attributes, from 1 (not well at all) to 10 (very well).

Table S2. Comparison of current autoinjector with BETACONNECT.

Full statement wording posed to survey respondents	Abbreviation used in Figure 4
1. I will be able to use more injection sites with the new autoinjector than with my current autoinjector	Will be able to use more injection sites
2. The new autoinjector will allow me to be more independent	Increases independence
3. I will require less assistance with injections with the new autoinjector than with my current autoinjector	Requires less assistance
4. The new autoinjector is more comfortable to handle during injections than my current autoinjector	More comfortable to handle
5. The new autoinjector offers greater ability to customize my injection than my current autoinjector	Greater ability to customize injections
6. Since I can customize the injection speed and depth, injections would likely be less painful with the new autoinjector	Customizing injection speed/depth may reduce pain
7. I appreciate the potential to personalize the injection speed with the new autoinjector as it may help make the injection more comfortable	Adjusting injection speed may increase comfort
8. The sound that this new autoinjector makes when I press the button to start the injection is more user-friendly than my current injection	Injection sound is more user-friendly
9. The lack of loud noise at the start of injection with the new autoinjector will reduce my anxiety around injections	Quiet injections will reduce anxiety
10. I will be less anxious with this new autoinjector	Less anxiety with new autoinjector
11. I am confident the new autoinjector will work properly due to the self-check function	Self-check feature will improve reliability
12. I like the automatic needle retraction feature because it eliminates any issue in having to pull the needle out myself	Automatic needle retraction is valuable
13. I am confident that the built-in dwell time will help me to know when the medication has been fully delivered	Built-in dwell time ensures full drug delivery
14. The new autoinjector is more self-explanatory to use due to the lights and button	Lights/button make operation self-explanatory
15. I will feel more comfortable injecting with the new autoinjector than with my	More comfortable injections

current autoinjector	
16. The reminder function will reduce the chance of forgetting an injection	Reminder reduces chance of forgetting injections
17. I feel the new autoinjector may improve my adherence to my MS medication	May improve adherence to medication
18. The new autoinjector has a better look and feel than my current autoinjector	Better look and feel
19. The injection process is easier with the new autoinjector vs. my current autoinjector	Injection process is easier

Patients agreed or disagreed with the full statements by providing a rating from 1 (strongly disagree) to 10 (strongly agree).