'A new approach to continuing professional development through NeuroBytes: an online e-Learning platform that provides concise, evidence-based updates on high-yield neurology topics'

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# Background

Rapidly growing advances in medicine necessitate high-yield updates in continuing professional development (CPD). In neurology, a sustainable CPD system is vital given the field's expanding therapeutic options, multiple subspecialties, and vulnerable patient populations. In an effort to offer concise, evidence-based updates to a wide range of neurology professionals, the American Academy of Neurology (AAN) launched NeuroBytes – brief, multimedia videos that provide topic-specific updates to AAN members.

# Objective

We aimed to assess the feasibility, usability, target audience, and effectiveness of NeuroBytes, a bite-sized (<5 min) asynchronous e-Learning program for continuing education of neurology healthcare providers.

#### Methods & Design

NeuroBytes was beta tested from August–December 2018 and piloted from January– April 2019. Usage was assessed by course enrollment and completion rates; feasibility by quantifying the cost and time required to design and release a module; appeal by user satisfaction scores; and effectiveness by self-reported change in practice behaviors.

### Results

A total of 5,130 NeuroBytes member enrollments (1,026+551/month) occurred from January 11– May 28, 2019 with a median of 588 enrollments per module (interquartile range, 194-922) and 37% course completion. The majority of viewers were neurologists (54%) followed by resident trainees (26%) and students (8%). NeuroBytes took 59 hours to develop at an estimated \$77.94/hour. Of the 1,895 users who completed post-course surveys, 82% were "extremely likely" or "very likely" to recommend NeuroBytes to a colleague and 60% agreed that the depth of educational content was "just right." Only 29% of viewers responded that NeuroBytes would change how they managed *many* of their patients.

#### **Conclusions**

NeuroBytes is a user-friendly, cost-effective CPD product that delivers concise and relevant updates to neurology practitioners. Future efforts will explore models where NeuroBytes targets patient or trainee audiences and combines with other CPD programs to impact the quality of training, patient care, and clinical practice.