Writing Medical Quizzes

“Gamification” for Physicians and Other Health Care Professionals

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Why Do HCPs Like to Take Quizzes?
Why Should You Be Interested in This Session?

- Gamification is a major trend in HCP communications, embraced by both publishers and pharmaceutical industry.
- Medical quizzes have always been an integral part of CME.
- Many non-CME medical communications sites currently publish medical quizzes, creating a good market for freelance marketing targets.

Why Should I Present This Session?

- We developed MD-IQ Quizzes from the ground up for Frontline Medical Communications 5 years ago when I was VP, Custom Programs.
- MD-IQ, is a free, non-CME, Medical Intelligence Quiz program featured on 25 medical journal websites at medge.com.
- It quickly became the highest digital traffic department in the entire company, the most cost efficient, and brought in high revenue from pharma sponsorships.
- We recently launched a quiz platform on our new startup, AllMedx.com (a medical search site spinoff from Frontline) to help pharma brands meet their strategic imperatives and increase engagement.
Justification for Gamification: Why Pharma Brands Should Consider This Engagement Tactic

Gaming

Platforms that tap the competitive nature of physicians are emerging channels for amplifying key educational brand messages while also delivering real-time data and insights. According to a poll of 500 global MDs, administered via MedLIVE.com, 82% of MDs are interested in competing against global peers in online health games that test their knowledge. Like social communities, competitive education platforms that target participation from HCPs bring a unique ability to create influence and derive powerful data and actionable intelligence via crowd-sourcing.
How to Write Great Medical

QUIZZES

Quality Medical Quiz Content Sources

- Review articles & studies done in the United States from top-tier peer-reviewed journals
- Large, randomized trials/meta-analyses with 1,000+ participants
- Cochrane analyses & USPSTF guidelines
- US society & association clinical practice guidelines, recommendations, & statements
- US society website links geared to health professionals such as Fact Sheets & Statistics
- US government links, such as: CDC, NIH, FDA
Sources to avoid

- Articles and studies older than 6 to 12 months (publication date)
- Editorials & commentaries
- Small, animal, experimental, or phase I or II studies.
- Meeting presentations (these can be used, but are a last resort)
- Non-US studies (unless the source is held in general high regard by the specialty)

Topics to Avoid

- Off label or controversies, unless specifically identified as such
- Pregnancy & children unless for that specific audience
- In-depth questions on genetics (basic information is OK)
- Questions about study design, cohort information, & methodology of a study
- Animal studies
Types of Quiz Questions

- Multiple Choice
- True/False
- Fill in the blank
- Complete the sentence

How to Write Engaging Medical Quiz Questions

- Make questions clear, interesting, and clinically relevant
- Understand exactly what fact or concept caught your interest and frame it clearly in the question
- Avoid double negatives and confusing Q & A setups
- Facts that may change the way a disease or treatment is understood make good questions
- Facts that may improve the practitioner's diagnostic or treatment skill are good to use
- Theoretical issues are generally not as engaging as those might generate a change in physician behavior
Vary Question Formats

- The format for the individual questions should be varied within a given quiz
- Avoid setting-up questions in case-study format (too long and detailed)
- Avoid crafting questions that present data-driven answer options unless those options are significant to the physician
- Pharmacologic/drug-treatment driven questions should be approached with caution and questions related to specific doses should be avoided
- One word answers are preferred; phrases should be short
- For the answer Explanation, if using a direct quote from the source, be sure to use quotes

Answer Options

- Answer options should be as brief as possible; long answer options are confusing and rarely improve question quality
- The answer options must seem reasonable; finding and constructing reasonable-looking wrong answers (“distractors”) can take work
- When writing distractors, do not try to trick the reader by using incorrect units of measurement, reversing numbers, or employing other misleading gimmicks. Instead, pose alternate responses that appear reasonable, based on the topic
- Make sure the distractor answer could not be plausible; this can be tricky
- 3 to 5 answer options are usually best and can include All of the Above, None of the Above, and/or Both A & B
- Take care to use parallel structure in answer options
- Use alpha order for answer options to eliminate bias in selection
Simple Answers Example

Question #1
In addition to the characteristic joint pain and swelling, which conditions often develop in patients with PsA?
A. Enthesitis
B. Dactylitis
C. Melanoma
D. A and B

Answer Explanations

- The correct answer explanation may be as long as required but in general, should still be less than about 125 words
- Every effort should be made to compose an explanation that is not merely a reiteration of the question
- If possible, wrong choices should be discredited without a lengthy explanation
- Questions, answers, and explanations should be marked up in the source PDF to support fact checking just like with all medical articles
Level of Difficulty

- HCPs do not want questions that only a select few experts could be expected to answer.
- HCPs also do not want questions that would require having memorized a particular study to know the data.
- HCPs do want to be pleasantly challenged and to learn something.

Special Quiz Types

- Sponsored
- Image based
- CME versus non-CME
Quiz Platform

Live Quiz Example

Diagnosis of Rheumatoid Arthritis

https://allmedx.com/allmedicine/rheumatology/rheumatoid+arthritis/Rheumatoid+Arthritis/quiz_2
Questions

- Has anyone in the audience ever written a medical quiz?
- Do you have any writing tips to contribute?