



Using behavioural science to improve diagnostic accuracy in rare disease

Our behavioural approach allowed us to identify a game-changing insight which would not have been achieved through traditional interviewing alone.

Background

Rare diseases are often misdiagnosed.

- Sufferers present with a variety of different clinical features, and many physician specialties can be involved
- A correct diagnosis can take time, sometimes years, but treatment is most effective when started early, hence there is a need to improve diagnostic accuracy

Through “traditional” research, physicians identified a core cluster of symptoms which they believed would trigger disease recognition and thereby prompt testing and referral.

Our approach

In order to test this belief, we developed an innovative behavioural methodology.

Our aim was to measure the real-life impact of identified symptoms and their ability to act as “triggers” to prompt consideration of the specific rare disease as part of the differential diagnosis.

- Designed to mirror the consultation and diagnostic decision process; genuine patient case information was gradually revealed
- Physicians first made their own tests and judgements before consulting with others

Outcome

We found that in reality, behaviour did not match expectation.

- A trigger-symptom approach is likely to have limited traction and value in reaching an accurate diagnosis
- It could actually be limiting — where patients do not present with “textbook” symptoms, likelihood to test further is potentially reduced
- “Successful diagnosers” showed a different mindset to non-diagnosers, suggesting a broader strategy may be required, e.g.:
 - Educate on cognitive biases which prioritise familiar disease profiles
 - Encourage “thinking differently” rather than creating a list of specific symptoms

About Cerner EnvizaSM

Cerner Enviza aims to accelerate the discovery, development and delivery of extraordinary insights and therapies to improve everyday health for all people globally. By combining decades of innovation, life sciences knowledge and collaborative research, Cerner Enviza provides data-driven solutions and expertise that helps bring remarkable clarity to healthcare’s most important decisions. For more information on Cerner Enviza, visit www.cernerenviza.com.

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