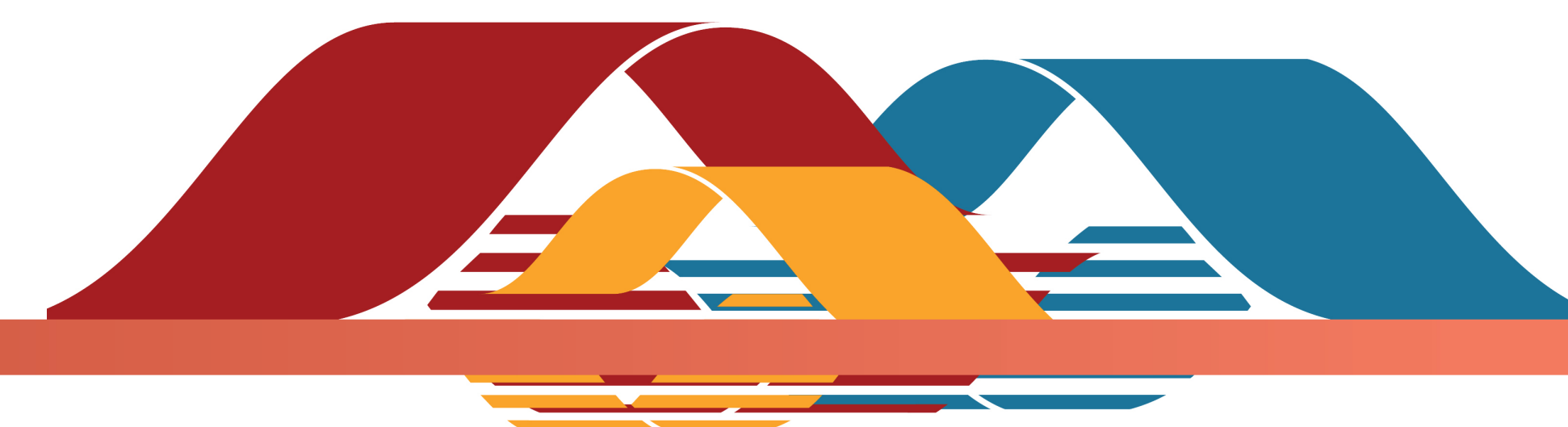# POSTER PRESENTATION

YouTube as a Source of Information for Carotid Endarterectomies

Jhanvi Dholakia, Anantha Narayanan.
Wellington Hospital, New Zealand.

INTRODUCTION

YouTube us the largest database for videos on the internet. Its growing popularity has made it a source of education and information for patients. However, the videos are not moderated by medical personnel, and therefore there is no quality control.

AIM

We aim to assess the quality of videos for patient education on carotid endarterectomies on YouTube.

METHODS

YouTube was systematically searched using terms 'carotid endarterectomies' , 'carotid surgery' and 'CEA' along with 'patient information'. The first 140 videos were assessed, of which 12 videos were included in the study. Videos aimed at educating patients were included. Videos targeted as education for medical students and doctors were excluded, as were patient opinion pieces. Data was collected on the number of views, type of presenter, date of publication. The 12 videos were assessed by 2 independent researchers, using the JAMA benchmark, DISCERN questionnaire, and the Health on the Net Code (HON Code).

Criteria	Description
Authorship	Authors and contributors, their affiliations, and relevant credentials should be provided
Attribution	References and sources for all content should be listed clearly, and all relevant copyright information noted
Disclosure	Web site "ownership" should be prominently and fully disclosed, as should any sponsorship, advertising, underwriting, commercial funding
Currency	Dates that content was posted and updated should be indicated

JAMA benchmark

Number	Question	Score				
1	Are the aims clear?	1	2	3	4	5
2	Does it achieve its aims?	1	2	3	4	5
3	Is it relevant?	1	2	3	4	5
4	Is it clear what sources of information were used to compile the publication (other than the author or producer)?	1	2	3	4	5
5	Is it clear when the information used or reported in the publication was produced?	1	2	3	4	5
6	Is it balanced and unbiased?	1	2	3	4	5
7	Does it provide details of additional sources of support and information?	1	2	3	4	5
8	Does it refer to areas of uncertainty?	1	2	3	4	5
9	Does it describe how each treatment works?	1	2	3	4	5
10	Does it describe the benefits of each treatment?	1	2	3	4	5
11	Does it describe the risks of each treatment?	1	2	3	4	5
12	Does it describe what would happen if no treatment is used?	1	2	3	4	5
13	Does it describe how the treatment choices affect overall quality of life?	1	2	3	4	5
14	Is it clear that there may be more than one possible treatment choice?	1	2	3	4	5
15	Does it provide support for shared decision making?	1	2	3	4	5
16	Based on the answers to all of these questions, rate the overall quality of the publication as a source of information about treatment choices	1	2	3	4	5

DISCERN tool

Authority	Give qualifications of authors
Complementarity	Information to support, not replace
Confidentiality	Respect the privacy of site users
Attribution	Cite the sources and dates of medical information
Justifiability	Justification of claims/balanced and objective claims
Transparency	Accessibility, provide valid contact details
Financial disclosure	Provide details of funding
Advertising	Clearly distinguish advertising from editorial content

Health on the Net Code (HON Code)

RESULTS

12 videos were assessed in total. They were published on the platform between 2010 and 2019. Views for each video ranged from 200-117,000.

There was a range of presenters, such as academic staff, surgeons, nurses and voice overs with no credential information shared. 3 videos were presented by educators, 8 videos were presented by a physician, and 1 video was presented by a nurse. Of the videos presented by doctors, 6 were presented by Vascular surgeons and 2 were presented by Neurosurgeons.

Half of the videos (6), were animations, with or without presenters. The other 6 videos had a didactic format

Of the 12 videos, 10 described the pathophysiology in detail with keywords of 'atherosclerosis', 'plaque', 'stenosis' and 'risk of stroke' 2 videos failed to define this.

Of the 12 videos, 10 videos defined the process of the endarterectomy. 2 videos talked about using a 'patch' to close the arteriotomy. 5 videos described the use of a shunt to decrease the risk of intraoperative stroke.

3 videos out of 12 listed the risks of the procedure. The keywords needed to define this criteria were 'bleeding', 'infection', 'stroke', 'nerve damage'. The other 9 videos did not include risks in their information for the consumer.

Channel	Scales		
	JAMA	DISCERN	HON Code
ALILA medical media	2	28	No
Carilion Clinic	2	26	No
Nucleus Medical Media	2	34	No
SVS Vascular	3	34	No
Cleveland Clinic	2	29	No
Cleverscrubs	0	26	No
SVS Vascular	3	33	No
UMMCVideos	2	29	No
AllHealthGo	0	23	No
El Camino Health	3	36	No
Amerra Medical	0	18	No
Don Holifienld	2	22	No

The mean JAMA score for all the videos was 1.75 out of 4. 2 videos scored 0, as they did not meet any of the criteria for the JAMA benchmark.

The mean DISCERN score was 28.2
A score of 16-26 points is very poor and a score of 27-38 is considered poor. No video score more than 38 points in our study which shows all videos were of poor or very poor quality.

No video had the HON Code seal which shows that no video was authenticated by the group.

CONCLUSION

Our study has shown that videos on YouTube about carotid endarterectomies are of poor quality in their aim to share information with patients and educate to a desirable standard.

There is a paucity of information appropriately targeted to our patient population about carotid endarterectomies on YouTube. The videos need to be brought to the public by credible sources, listing all the different modalities of treatment, acknowledging the risks and benefits and conveying all of those in a manner that is suitable to the health literacy of the population. This study has highlighted the need for better quality and more up to date videos, that can be used in patient education in the hospital and community settings.

These videos need to comply with benchmarks set by multiple external bodies such as the JAMA benchmark, DISCERN tool and HON Code, that allow us to ensure that the information being disseminated is of a satisfactory standard.

As more of our population becomes digitally savvy, the modalities of disseminating information will transition from pamphlets in the doctor's office to health information online and so it is up to the surgical field to keep up with the growing demand for information in this way.

BIBLIOGRAPHY

Charnock, D., Shepperd, S., Needham, G., & Gann, R. (1999). DISCERN: an instrument for judging the quality of written consumer health information on treatment choices. *Journal of epidemiology and community health*, *53*(2), 105–111.

Silberg WM, Lundberg GD, Musacchio RA. Assessing, Controlling, and Assuring the Quality of Medical Information on the Internet: Caveant Lector et Viewor—Let the Reader and Viewer Beware. *JAMA*. 1997;277(15):1244–1245.

TCélia Boyer, Cédric Frossard, Arnaud Gaudinat, Allan Hanbury, Gilles Falquetd. How to sort trustworthy health online information? Improvements of the automated detection of HONcode criteria. Procedia Computer Science. Volume 121. 2017. Pages 940-949.