



INTRODUCTION

Lung cancer is the highest contributor to new cancer diagnoses and cancer death in men and women combined¹. YouTube is a social media site that is frequently used to seek health information, but there are concerns over the reliability of information³. Prior studies have demonstrated that general search queries for seeking cancer information are common, and likely are used to guide subsequent search topics^{4,5}.

Objective:

To assess the parameters and topics of the lung cancer YouTube videos as reflected by an initial general search and evaluate their characteristics against best learning practices.

METHODS

- "Lung Cancer" was searched on YouTube using the default "Relevance" filter and the first 50 videos were evaluated
- YouTube shorts, duplicates, non-English, paid and non-relevant videos were excluded
- A video assessment tool was used to characterize video general parameters, source parameters and content
- A Modified DISCERN tool was used to assess video reliability, which included five "yes" or "no" items (Table 2)
- Two researchers independently reviewed 10 videos. The remaining were reviewed by one researcher with issues resolved using a design-based research approach

RESULTS

- Median Video Age: 4.0 years (Range: 8 days - 11 years)
- Median Video Length: 4 min 25s (Range: 46s – 34 min 5s)

Table 3 DISCERN scores by item	
Item	Mean (SD)
1) are the aims clear?	0.92 (0.27)
2) are reliable information sources used?	0.88 (0.33)
3) is the information balanced and unbiased?	0.7 (0.46)
4) are additional sources listed for patients?	0.66 (0.48)
5) are areas of uncertainty stated?	0.42 (0.50)

Table 2 Video demographics (Abbreviated)	
	Number of Videos (Percent of Total)
Publisher Affiliation	
Health Care Facility/ Organization	15 (30)
Non-Profits	13 (26)
Commercial	15 (30)
Presenter Type ^a	
Physician	23 (46)
Patient	15 (30)
Target Audience	
Patient	34 (68)
Healthcare Provider	16 (32)
Other	
Advertisements	3 (6)
English Subtitles Available	48 (96)
Gross Bias	0 (0)

^aCategories are not mutually exclusive

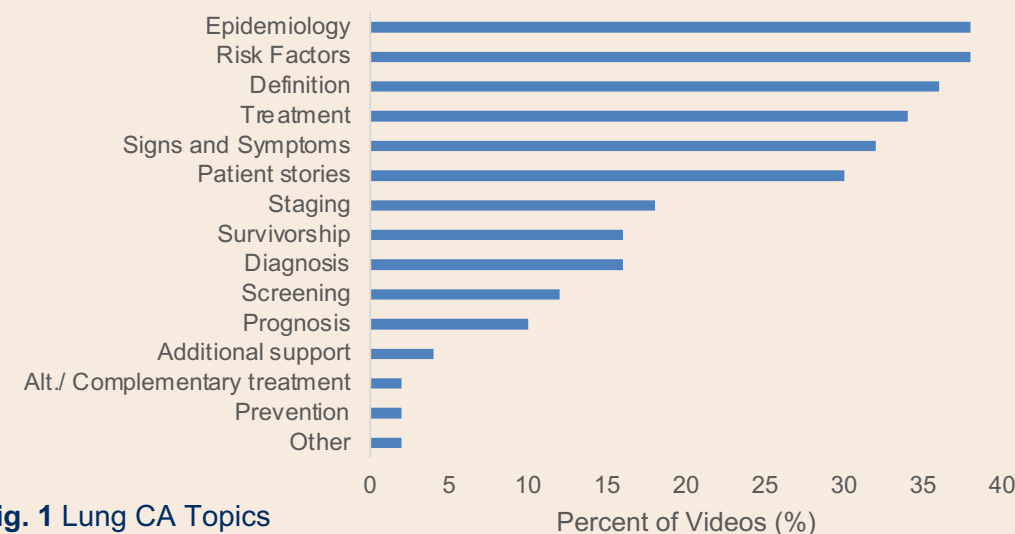


Fig. 1 Lung CA Topics

DISCUSSION

- Information about lung cancer epidemiology and risk factors (smoking) were more common than expected, while prognosis, diagnosis and alternative/ complementary treatments were less common¹³
- The lack of prognostic information is consistent with previous studies¹⁴
- Patient stories were more common than expected, which may reflect the ongoing shift towards social media for health information as it offers a community of support from others with similar experiences

COMPARISON TO BEST PRACTICES FOR VIDEO EDUCATION¹¹



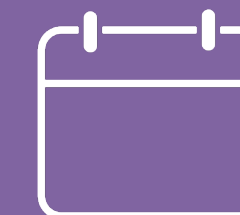
72% of videos were < 6 mins, the maximum median time for viewer engagement



Only 46% of videos had physician presenters (preferred source by patients)



Subtitles were available in almost all (96%) of videos, which supports a variety of learning needs



Patients should confirm their understanding of lung cancer information with their physician since >50% of videos were published > 3 years ago

IMPLICATIONS

A general search may not provide the types of information patients frequently seek (e.g. alternative and complementary treatments). It would be valuable for healthcare providers to offer a list of key lung cancer topics to guide patient searches