

Creating and Testing a Patient Decision Aid for the Management of Unruptured Cerebral Aneurysms Josh Feler; Samuel Aramis Cornelio Sommaruga MD; Ryan Matthew Hebert MD; Ajayy Malhotra; David Y. Hwang MD; Charles Christian Matouk BSc MD Yale University, Yale New Haven Hospital

Introduction

Deciding to treat an unruptured cerebral aneurysm involves discussion with patients regarding outcomes data and personal attitudes towards risk of rupture versus procedural complication risk. Research has suggested high rates of inter-provider variability in recommendations during these discussions and physician-patient discordance regarding the perceived plan, even immediately postconsultation. Patient decision aids created to facilitate similar discussions for other elective surgeries have been shown to improve patients' knowledge, comprehension of risk, and congruency between personal values and care choices. We are developing and testing the efficacy of a multimedia patient decision aid that provides education about unruptured aneurysms and management options personalized with data specific to patient and lesion characteristics.

Methods

Content is being developed according to International Patient Decision Aids Standards (IPDAS) guidelines. The tool will be delivered to patients before consultation and reviewed during consultation. Details of content and format will first involve feedback from at least 10 patients and 10 expert providers. Subsequent cognitive testing among 15 patients and 15 additional physicians will refine the drafted aid in an iterative process. The completed tool will be validated in a pre-post study at multiple centers.

Results

Primary outcome metrics will include validated scores of patient decisional conflict, accuracy of patient risk estimation, and patient-physician concordance regarding the plan immediately post-



Example of screenshot of a page of an aneurysm management decision making tool describing modalities of treatment available for unruptured aneurysms.

Aneurysm Management Decision Making Tool

Summary of Relevant Data

Risk of Rupture without treatment: 0.23% or 1 in 435 chance of rupture every year

General 2-3 days	Conscious Sedation
2-3 days	A.7 data
	4-7 Gays
onth, 6 months, 1 ye	ar, annual imaging of head
5%	7%
of the procedures we For example, a1.8% c	re performed, how many o hance of death indicates
	5% of the procedures we For example, a1.8% c 00 who receive the pr

Example of screenshot of a page of an aneurysm management decision making tool describing the risks of treatment versus natural history of the disease.

Conclusions

We expect our aid to decrease patient decisional conflict, improve accuracy of patient risk estimation, and only moderately increase consultation time.

Learning Objectives

•Discuss best practices in shared decision making and evidence describing its efficacy in clinical decision making.

•Explore the role of educational technology in facilitating improved patient learning, decision making, and experience of illness.

•Review proven strategies for the creation and implementation of shared decision aids in clinical contexts.

References

Fraenkel L, Street RL Jr, Fried TR. Development of a tool to improve the quality of decision making in atrial fibrillation. BMC Medical Informatics and Decision Making 11:59;2011.

Fraenkel L, Street RL Jr, Towle V, O'Leary JR, Iannone L, Van Ness PH, Fried TR. A pilot randomized controlled trial of a decision support tool to improve the quality of communication and decision -making in individuals with atrial fibrillation. JAGS 60:1434-1441;2012.