Uveal Melanoma Patient Attitudes Towards Prognostic Testing Using Gene Expression Profiling

Basil K Williams, Jr, MD¹, Jennifer J Siegel, PhD², Katherina M Alsina, PhD², Lauren Johnston, MSW³, Amanda Sisco, MA⁴, Kyleigh LiPira, MBA³, Sara M Selig, MD, MPH³, and Peter G Hovland, MD, PhD⁴

¹University of Cincinnati College of Medicine, Cincinnati, OH, USA ²Castle Biosciences, Inc., Friendswood, TX, USA ³Melanoma Research Foundation, Washington, DC, USA ⁴Colorado Retina Associates, Denver, CO, USA

Conflicts of interest disclosure: JJS and KMA are employee shareholders of Castle Biosciences, Inc. (CBI). BKW is a consultant for Allergan, Genentech, and CBI. PGH is a consultant for CBI. Neither BKW nor PGH received payment in relation to this study. All other authors have nothing to declare

For more information: basilkwilliams@gmail.com
Background and Survey Study Design

- Prognostic tests including 15-gene expression profile (15-GEP), chromosome 3 status, and BAP1 mutations are used across the U.S in the management of newly diagnosed uveal melanoma (UM)

- The objective of this study was to understand UM patient experiences following 15-GEP testing compared to patients with alternative or no prognostic testing

![Diagram showing patient experiences following 15-GEP testing]

Patients with clinical diagnosis of UM N=177

- 15-GEP (DecisionDx-UM) N=91
  - Decision-making process N=85
  - Concerns about testing N=84
  - Value of test results N=85
  - Decision regret N=85

- Alternative Test Only N=21
  - Decision-making process N=16
  - Concerns about testing N=16
  - Value of test results N=16
  - Decision regret N=16

- Offered 15-GEP testing but opted out N=5
  - Decision-making process N=5
  - Decision regret N=5

- Not offered prognostic testing N=47
  - Decision-making process N=45

- Did not know N=13
  - Decision-making process N=13
Desire For and Use of Prognostic Testing

A. ‘Did you want prognostic information when diagnosed?’

Yes (90%)  
I don’t know (5%)  
No (5%)

N=177

B. ‘What kind of testing was performed?’

- 15-GEP
- Chr. 3
- BAP1
- None
- Unsure

% of Patients
Patients Value Test Results: ‘What do you feel you gained MOST...?’

› ...from any prognostic test: increased knowledge and understanding

› ...from 15-GEP: patients with a Class 1A result (low risk) gained a sense of relief from uncertainty about the future
Low Decision Regret\(^1\) After Prognostic Testing, Regardless of 15-GEP Class Result

- Patients had significantly more decision regret if they opted out of prognostic testing.

\[ P=0.0002 \]

- For 15-GEP-tested patients, no significant difference in decision regret was found across all Class results.

\[ P=0.003 \]

\[ \text{n.s.} \]

\(^1\)Decision Regret Scale: AM O’Connor, 1996.