



**ENDOUROLOGY SOCIETY  
2012 Summer Student  
Scholarship**

The Endourology Society is pleased to announce the following recipients of this year's **2012 Summer Student Scholarship**:

1. Mr. Michal Ursiny  
University of Vermont College of Medicine  
Mentor: Dr. Brian Eisner

Dear Endourological Society,

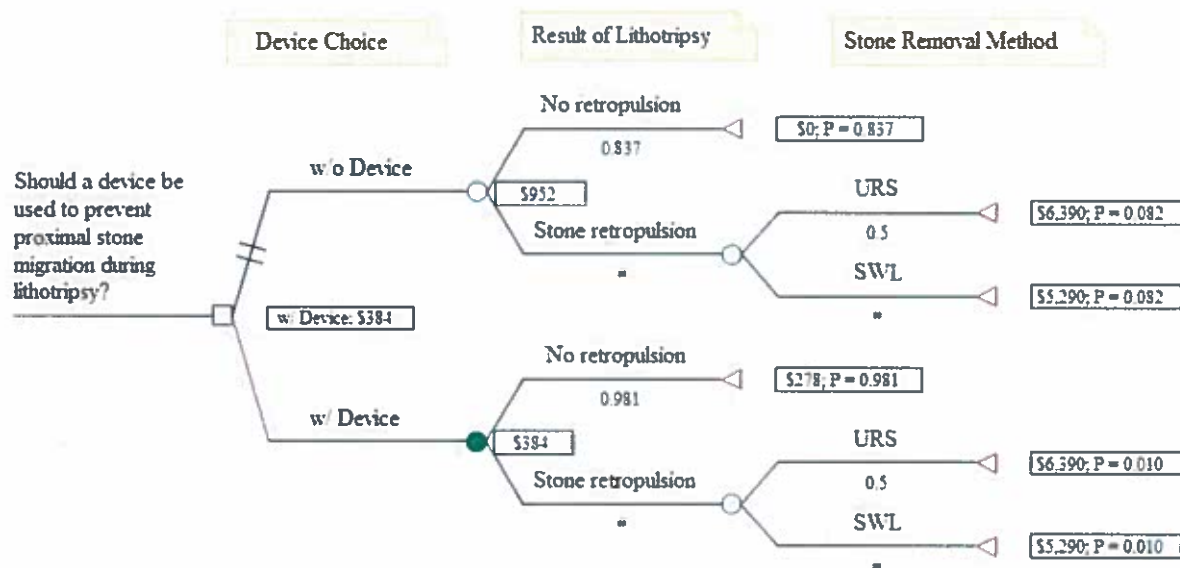
Thank you for your generosity and enthusiasm in support of my research this summer at Massachusetts General Hospital with Dr. Brian Eisner. Toward the end of my first year of medical school, I changed summer plans abruptly after spending time with Dr. Mark Plante, an urologist at the University of Vermont. Unfortunately, at that point most research funding deadlines had already passed, and I was left scrambling. Thanks to your generous support, I was able to have an incredibly rewarding summer of clinical research and confirmed my passion for Urology as a career. And for that, I am extremely grateful.

As with any successful work, it is always a team effort and this was no exception. Not only did I have the support of the Endourological Society, but I had the good fortune of having an enthusiastic, dedicated, and generous mentor in Dr. Brian Eisner. Mentors make a world of difference on young students such as myself, and I feel incredibly fortunate.

Here is the executive summary of what Dr. Eisner and I accomplished this summer with your support:

Cost-Effectiveness of Anti-Retropulsion Devices for All Ureteroscopic Lithotripsy

Our aim was to evaluate the cost-effectiveness of anti-retropulsion devices for ureteroscopic lithotripsy. A decision analysis model (below) was constructed to compare the cost-effectiveness of ureteroscopic lithotripsy with and without an anti-retropulsion device. Probability of stone retropulsion was determined from previously published data.



The average additional cost of ureteroscopic lithotripsy without the use of an anti-migration device is \$952 vs. \$384 with an anti-migration device at the reported rates of retropulsion. Economically, we determined that it becomes cost-effective to use an anti-retropulsion device at or above a retropulsion rate of 6.3%.

We sent an abstract to the AUA and will be submitting our detailed findings to a peer-reviewed journal in the near future, acknowledging your support.

*Creation of a web-based dietary tool for the evaluation of patients with nephrolithiasis*

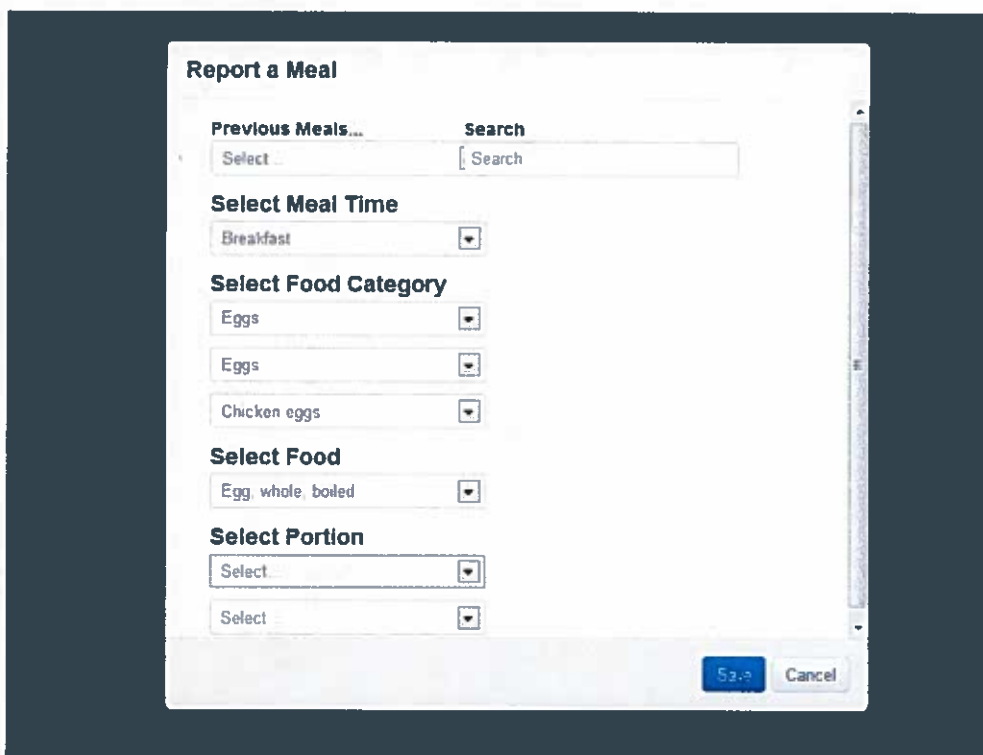
The goal of this project was to create a better way to efficient collect diet information from patients in order to evaluate possible associations between diet, nephrolithiasis, and 24-hour urine collections.

In this short window of time, we were able to create a framework for this online tool. Below is what the program can do:

- Patients are able to login and itemize detailed foods and beverages
- Database includes over 7000 different foods and all associated nutritional information
- Calculates the nutritional totals of their diet ex. minerals, fatty acids, protein, etc.
- Doctor can logon as administrator and download excel spreadsheet of patients diet and nutrient totals for clinical care and research purposes

At this point, we are fine-tuning the software and working with an MGH development/security team. Securing patient information is a concern with every project like this and MGH's security team is handling that aspect so that this tool could be available on the MGH home website. Once the site is launched, the plan is to pilot and validate at MGH. If that succeeds, expansion of the site for use by outside institutions is the eventual goal. Below are some screenshots of the current tool:

Reporting a Meal:



The screenshot shows a web form titled "Report a Meal" with the following fields and options:

- Previous Meals...**: A dropdown menu with "Select" as the current option.
- Search**: A text input field with "Search" as a placeholder.
- Select Meal Time**: A dropdown menu with "Breakfast" selected.
- Select Food Category**: A dropdown menu with "Eggs" selected.
- Select Food**: A dropdown menu with "Eggs" selected.
- Select Portion**: A dropdown menu with "Chicken eggs" selected.
- Select**: A dropdown menu with "Egg, whole, boiled" selected.
- Select**: A dropdown menu with "Select" as the current option.

At the bottom right of the form, there are two buttons: "Save" (in blue) and "Cancel".

Abbreviated nutrient spreadsheet of a sample patient's dietary log:

	6-Jul	7-Jul	8-Jul	9-Jul	Totals
PROCNT (g)	15.8	44.7	1.1	4.2	65.9
FAT (g)	12.0	46.1	0.6	18.1	76.7
CHOCDF (g)	0.9	68.1	90.9	28.4	188.2
ENERC_KCAL (kcal)	180.0	865.0	1,286	288.0	1333.0
ALC (g)	0.0	0.0	135.5	0.0	135.5
WATER (g)	96.0	1,249.68	1,154.25	360.5	456.5
CAFFN (mg)	0.0	0.0	69.0	0.0	69.0
THEBRN (mg)	0.0	0.0	0.0	0.0	0.0
SUGAR (g)	0.5	71.6	79.9	28.4	180.4
FIBTG (g)	0.0	0.0	0.0	0.0	0.0
CA (mg)	71.0	1,602	28.0	132.0	231.0
FE (mg)	2.2	0.4	1.2	0.1	4.0
MG (mg)	15.0	142.0	14.0	12.0	183.0
P (mg)	249.0	1,191	111.0	58.0	418.0
K (mg)	174.0	1,872	166.0	210.0	550.0
NA (mg)	179.0	610.0	69.0	70.0	928.0
ZN (mg)	1.6	5.3	0.4	0.7	8.0
CU (mg)	0.1	0.4	0.1	0.2	0.8
SE (mcg)	38.7	52.5	1.4	7.4	100.0

Overall, Dr. Eisner and I are excited with what we accomplished together in such a short time, and will continue to work together in the future on various projects including the web-based dietary tool. I truly am privileged to have received your generous support this summer, and our projects would have been far less likely to succeed without it. Thank you again and please let me know if there is anything else that you would like from me, I'd be happy to provide it. Otherwise, I'd hope to meet you all in person sometime in the near future.

Best regards,

Michal Ursiny, MS-II  
 University of Vermont College of Medicine  
 Burlington, VT