

NEWSLETTER

Cystinuria Registry

Part of the Rare Kidney Stone Consortium

Rare Kidney Stone Consortium Hosts Symposium in London

The RKSC is pleased to describe the RKSC Symposium, held in conjunction with the International Cystinuria Foundation, on Saturday, December 15, 2012, in London. This symposium was targeted to people, not scientists, with the disorders that the RKSC studies. The event took place at the Royal Free Hospital. Some of us used the occasion to visit Imperial College, where Matt Lewis, current president of the ICF, is working and earning his PhD in chemistry. The RKSC is interested in four types of genetically-determined kidney stones: those associated with cystinuria, primary hyperoxaluria, APRT deficiency and Dent disease. The meeting brought people with all four types of stones together in the morning to discuss stones in general. The discussion included an explanation of how the RKSC functions. Dr. Kay Thomas of Guy's Hospital and her team described urologic surgery for kidney stones as well as dietary interventions that can be helpful for stone prevention.

In the afternoon, we split into four groups and discussed the four types of kidney stones separately. Dr. David Goldfarb chaired the cystinuria discussion. The meetings about primary hyperoxaluria and Dent disease were run by Dr. Robert Unwin of UCL Centre for Nephrology, Royal Free Campus and Hospital, University College London Medical School, by Dr. John Lieske of the Mayo Clinic, and by Dr. Lada Beara-Lasic of NYU Langone Medical Center. APRT deficiency, a mutation causing lack of an enzyme and in turn leading to dihydroxyadenine stones, was discussed by Dr. Vidar Edvardsson and Dr. Runolfur Palsson from Reykjavik and the Landspítali Hospital, the National Hospital of Iceland. Dr. Sabbir Moochhala of the Royal Free also participated.

The meeting followed by one day a symposium about Lowe Syndrome, which is a genetic disease related to Dent disease and sometimes associated with kidney stones. Both Dr. Unwin and Dr. Lieske gave talks at the Lowe Syndrome meeting.

We were able to enroll people with these 4 rare disorders in the RKSC's registries at the meeting. It was an excellent opportunity for people with kidney stones to meet others similarly affected as well as healthcare professionals interested in these



Dear Registry Participant,

Dear Registry Participant,
Welcome to the first combined ICF-CSN-Cystinuria Registry Newsletter.

The release of this newsletter was scheduled for the fall 2012. Due to Hurricane Sandy, we had to postpone publication. Our medical center was seriously damaged and was closed for a while and our staff was displaced.

In the next couple of weeks, we should be back and operating under normal conditions. Your personal information was always secure in a double locked location. The only change you may notice in the future is a new fax number and mailing address for the registry.

This issue was created in cooperation with our Patient Advocacy Groups, the Cystinuria Support Network and the International Cystinuria Foundation.

We should use this opportunity to create a strong network of support and a better knowledge-base to understand and treat cystinuria. We are planning to release two issues each year, a Spring-Summer and Fall-Winter issue.

Feel free to mail us ideas, contributions or comments about these newsletters. Find in this issue, tips on how to pass a kidney stone and how to support children with cystinuria. Both were written by registry participants.

- Frank Modersitzki, MPH

Rare Kidney Stone Consortium Hosts Symposium in London

The first UK Rare Kidney Stone Consortium meeting was held on Saturday 15th December 2012 was attended by our team of Mitra Smith(nurse), Angela Doherty (dietician), Kathie Wong (Research Fellow) and myself. The day provided a unique opportunity for patients and doctors to mix and discuss problems and ideas. An excellent venue and catering was arranged by Dr Urwin at the Royal Free Hospital, London.

As expected cystinuria patients formed the majority of the attendees, many of whom had travelled with their family from all over the UK and even the Netherlands! The morning session was a series of presentations about each of the rare disease groups, then the afternoon was disease specific breakout sessions.

The cystinuria group were given an excellent overview of the history of the disease by Matthew Lewis – President of the International Cystinuria Foundation. He took us on a journey from the first description of a cystine stone in 1810 (stone still held at Guy's Hospital) through to the exciting advances in potential drug treatments.

Our own group presented the research that I have been supervising over the 4 years since the clinic was established. Kathie Wong our current research fellow presented our innovative work on urine monitoring of cystine crystals and the other dibasic amino acids affected in cystinuria (arginine, ornithine and lysine) to give a more accurate prediction of disease activity. The recent genetic studies of 70 patients attending our clinic and protein modelling work was also presented.

Angela Doherty gave an insight into her unique experience of providing dietary advice for cystinuric patients in our clinic. This led to a lively debate and lots of questions from the cystinuria patients present.

Dr David Goldfarb entertained as always with a summary of his vast experience with the disease. It was an honour for me to then join him on the podium for a 'question and answer' session from patients and doctors. Themes discussed were; the role of urinary pH monitoring and treatment, side effects of medication, cost of treatments, blood pressure control, surgical management.

The overwhelming feeling from the day was one of collaboration and optimism. Discussions continued well into the coffee and lunch breaks and we have had contact with both patients and doctors via e-mail subsequently.

Videos should be online for anyone who missed the day or would like to revisit any lectures – please keep an eye on the International Cystinuria Foundation website.

Miss Kay Thomas

I really enjoyed the symposium and felt it was a great opportunity for patients and healthcare professionals to gather together and meet to understand more about their rare genetic disease. This was the first time it was held in London and some patients had even flown in from neighbouring european cities to attend. It was a privilege to hear talks by international experts on the most up to date management strategies and research. The special session on cystinuria gave me an opportunity to share with patients the research we have been doing in the cystinuria clinic. The data presented from the registry on rare genetic diseases also highlighted to me the importance of maintaining such a registry for international collaboration between groups for research into novel management strategies. Altogether, it was a very successful and enjoyable event which I think should be held on a regular basis in different countries for the benefit of more patients.

Kathie Wong, Research Fellow

I found the symposium of rare kidney dis ease very interesting. The most important fact was that patients were among us. The communication between patients and professionals and between patients themselves, in my opinion, started that day. The information about registration on web-site and taking part in research were given without any force. I learned from the groups that had travelled from other countries to attend this event. I had a chance to ask questions and know more about the current practice in other countries. I thouroughly enjoyed it! I wondered when is the next one!

Mitra Smith, Nurse for the cystinuria clinic

The symposium was a great opportunity for me to enhance my knowledge on the management of cystine stones (the footage of a cystine stone being lasered was particularly dramatic!) and to hear more about the research that is going on in this area. I also enjoyed learning a little about other rare kidney stone types. It was wonderful to meet people from other hospitals who manage kidney stones patients.

During the course of the day I was approached by several cystinuria patients and relatives who had queries regarding diet and cystinuria. It is clear that many cystinuria patients, beyond those attending our clinic at Guy's hospital, are motivated to make any dietary changes that may help prevent further stone episodes. I was delighted to be able to offer them some advice and some of them have been in touch with me since.

Angela Doherty Dietician

Additional report on the first UK meeting of the Rare Kidney Stone Disease Consortium (RKSC), Saturday 15 December 2012, The Sir William Wells Atrium, Royal Free Hospital, London NW3 2QG

On 15 December 2012, the UCL Royal Free Campus/ Royal Free Hospital hosted the first UK meeting of the Rare Kidney Stone Disease Consortium, an international group of researchers funded by the NIH and the Office of Rare Diseases Research in the USA. This was a joint meeting open to patients, researchers and healthcare professionals with an interest in treating patients with rare forms of kidney stone disease.

There has been a renewed effort in the last three years to push forward research and diagnosis of rare diseases. The meeting was chaired by Professor David Goldfarb (New York University) and Professor Robert Unwin (University College London) who are experts in these disorders. There were talks on the medical aspects of these conditions, promising research possibilities and importantly, frank discussion of how to overcome the problems associated with this kind of research. The main issue is how to find patients all over the world who have particular forms of rare kidney stone disease. Increased knowledge among patients, working as a team with their doctors, and using the infrastructure of national and international registries (databases) are the best solutions. Because of the varied background of the attendees, the scientific content was explained rather than over-simplified. Patients and healthcare professionals excitedly discussed these issues over a cup of (Royal) Free coffee.

There were “breakout groups” in the afternoon, relating to the four conditions covered by the Consortium: cystinuria, primary hyperoxaluria, Dent/Lowe syndromes, and APRT deficiency (a cause of dihydroxyadenine stones). These smaller groups provided a chance to discuss day-to-day treatment issues and also to explain more difficult points. The response was enthusiastic: doctors and patients learnt from each other, the important issues in stone research were “crystallised” and debated, and new scientific collaborations were formed.

The meeting was informative and entertaining and we look forward to further joint meetings with the Consortium.

Dr Shabbir Moochhala

- Consultant Nephrologist, Royal Free Hospital



Dr. Moochhala with colleagues from Iceland



Matt Lewis talking about the history of cystinuria



Dents disease afternoon session



Active stone prevention after the meeting

Patient Advocacy Groups

Cystinuria Support Network-CSN Statement

- Kathryn Jewell

CSN was started by Jann Ledbetter. The current Moderator for the CSN website is Sue Holden. Kathryn Jewell (kathjewell@aol.com) is the Patient Advocate for the Rare Kidney Stone Consortium representing cystinuria, and the CSN.

CSN is here for patients, the caretakers, family, and friends that are dealing with cystinuria. We all share information, resources, support, and a place to ask the Cystinuria community how to deal with the unique problems that this disease can cause.

We share our ups and downs, what works, what doesn't work, blogs, updates, current research, and sometimes just a joke or two to lighten the mood. We often share things that we cannot share, or ask others that are in our daily life. CSN is an extended network of friends, that are dealing with many of the same issues, even though most have never met. If you have a question, or just need support while you are passing that stone, we are here for you 24/7, with members from all over the world.

International Cystinuria Foundation - ICF Statement

Why a Newsletter? - by Matt Lewis

The International Cystinuria Foundation is pleased to announce the reemergence of the Cystinuria Newsletter. Over a decade has passed since the last publication was distributed by the members of the Cystinuria Support Network in 1998. Since that time, many advancements have been made in the science and understanding of cystinuria. However, the challenges faced by patients and their families remain the same. Our goal with this semiannual publication is to continue the tradition of keeping the community informed, in touch with each other, and up to date on relevant research, clinical advancements, and community news.

- Matt Lewis

International Cystinuria Foundation – Message from the Matt Lewis

For years, the ICF has connected the international cystinuric population to the world's leading experts in cystine stone prevention, treatment, and research. Now, as a member of the Rare Kidney Stone Consortium, we are taking the interaction between patients, physicians and researchers to an unprecedented level of scope and sophistication. Please see the ICF website: www.cystinuria.org

The direct participation of the cystinuric community is fundamental to the research goals of the Consortium. The ICF therefore provides the key link necessary for the enrolment of willing participants and the dissemination of study findings back to the patient community.

As the voice of advocacy, the ICF's role in Consortium guidance ensures that all endeavours ultimately have direct impact on patient understanding, treatment, and quality of life.

Status of contact and disease registries

Currently we have about 270 patients with cystinuria in our contact registry, and we are still growing. We were able to confirm 150 consent forms and collect the first sets of patient charts for data extraction and transfer into the cystinuria database. In order to expedite extraction of data from medical records, we have changed our approach for requesting patient charts in the last year. We are now mailing patient chart release forms, together with a copy of your confirmed consent form to try to get in touch with your kidney doctor (urologist or nephrologist) directly. We are still planning on additional enrollment into our registry and after discussion with the patient advocacy groups, we think there is a lot of potential. Call us or send us an email in case you need additional forms from the registry (cystinuria@nyumc.org).

Currently we are working on the implementation of a biobank which will allow us to store specimens of urine, blood, stones and DNA(see more below). We also will resume assessment of Quality of Life. As soon these protocols become available we will get in touch with you. Stay tuned.

- Frank Modersitzki

TIPS FOR PASSING A KIDNEY STONE AT HOME

- by Kathy Jewell

- Drink plenty of fluids, but do not over hydrate as this can cause vomiting.
- Try to walk around, do not lie down. Gravity, and the movement should help the help move the stone down the ureter.
- Go for a jog or do a light workout if you normally exercise. Remember, gravity is your best friend when you are passing a stone.
- Ask your urologist for a prescription of FLOMAX to keep on hand when passing a stone. Remember to use it, as it has been thought to help open the ureter.
- Take a warm shower with a pulsating shower head directed on your back directly over lower kidney area. This is not supposed to cause more pain, but alleviate the pain, so adjust the water pressure so you are comfortable. This may shake the stone loose to help the blockage as an added bonus.
- Take a warm bath or a jacuzzi bath, use Epsom salts. Lavender scented Epsom salts may help you relax more.
- If you have not taken any pain medication, try drinking a beer. A radiologist gave me this tip once, and it has helped pass several stones.
- Have a soup that is heavy with broth, another way to get more fluids.
- Drink a 32 oz PowereAde. (PowerAde Zero if you are watching your calories). This has potassium citrate in it and will help keep your PH level high. I also find it helps keep my nausea level down.

GOOD LUCK!!!!

*** If your pain level is severe, there is blood in your urine, you have a fever, your urine has a strange odor, or is cloudy, if you are vomiting, or you are lethargic go to a doctor or the ER immediately.

Enrollment in Cystinuria Registry Remains on Track

One of the important goals of the Rare Kidney Stone Consortium is to develop registries of people with the genetic kidney stones in which we are interested. Registries are simply databases of people which keep track of various health features, like procedures, measures of kidney function, number of kidney stones. The registry for cystinuria has a goal of enrolling about 300 people during the five years for which we have funding. That means we have to enroll at least 60 people each year.

As of October 2012, we have in fact been able to keep up at this rate. The figure (FIGURE 1) demonstrates by the blue line what we are supposed to have achieved, and the red line indicates what we have really accomplished. As you can see we are practically on top of the blue line and that fact is thanks to the cystinuria community. THANK YOU for helping us stay right on track.

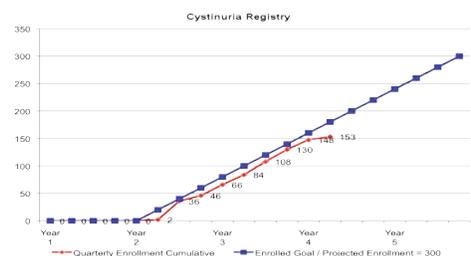
Of course we have to continue to stay with this rate and enroll as many people with cystinuria as possible. The efforts of our Patient Advocacy Groups has therefore been very important to this effort. The members of both the International Cystinuria Foundation and the Cystinuria Support Network have really contributed to keeping the registry in front of the eyes of the community, making sure that it comes up on the two Facebook pages. We would really like to single out Katie Jewell, Gayle Sweeney and Melissa Simpson as very effective advocates for the work we are doing.

If you haven't already signed up, you can do so by clicking on this link: <http://medicine.med.nyu.edu/nephrology/research/current/join+the+cystinuria+registry>

What happens after you sign up? We will send you a paper copy of a consent form with a stamped envelope to return it. People over 18 can sign for themselves, while parents can sign up for their children. (For children over 8 years old we ask them to sign an assent form, a simple grade-appropriate form that means we have gotten agreement from the child to participate). After that form is signed, we will ask your doctor to provide copies of your medical records at least every year and enter the data in our database at the Mayo Clinic.

By now we have enough people enrolled to further our mission of helping those with cystinuria. With your help we hope to have the largest cystinuria registry in the world! Thanks again for all your interest, support and involvement.

Feel free to contact us at cystinuria@nyumc.org or go to our website and start your registration by reading the contact agreement.



Cystinuria Biobank Launched

Another goal of the cystinuria project of the Rare Kidney Stone Consortium is to establish a biobank. A biobank is a collection of specimens from people with a given disorder, like cystinuria. The specimens in this case could include kidney stones, urine, DNA or blood. The specimens will be sent to the Mayo Clinic in Rochester, Minnesota and held until someone wants them for research related to cystinuria. A scientist would apply to the RKSC for permission to have some part of the specimens in order to do a study and learn something about cystinuria. The leaders of the RKSC would read the proposal and consider whether to give some of the previous samples away. Our first goal is to make sure that we do everything possible to make the community's contribution to the biobank worthwhile. The biobank does require a different consent form to be signed which we will send you. We will then arrange for specimens to be sent to the right place. We are looking forward to having a significant collection that will lead to more advances. If you are interested in joining the registry, please follow the link indicated below for further information.

CysCap = Cystine Capacity

Many of you have sent urine to Litholink Corp in Chicago to assess risk of cystine kidney stone formation. One of the tests they do is measurement of cystine capacity, or cyscap. In this test cystine crystals are prepared in a test-tube and added to your urine sample. If the crystals grow bigger after sitting in the urine for 2 days, your urine is "super-saturated" and shows a tendency to form stones. This is called a "negative cyscap": the urine cannot hold any more cystine and tends to ADD cystine to the pre-formed crystals. On the other hand, if the crystals added get smaller, your urine is "under-saturated" and has a POSITIVE cyscap, or it has the capacity to hold MORE cystine. Your goal is to make the cyscap of your urine a more positive urine by drinking more fluids, having a higher urine pH by taking citrate or bicarbonate, and by taking thiol drugs like Thiola (tiopronin) or d-penicillamine.

We now want to show that the cyscap test really is useful in treating people with cystinuria. We would like to demonstrate that people with better cyscap values (higher, more positive, values) have fewer stones, and that people with worse cyscap values (lower, more negative values) have more stones. We are now signing people up for our cyscap study. In this study, you don't have to do anything experimental at all; you just have to make sure we have your records and that you do a 24 hour urine collection with Litholink at least every 6 months. Litholink is doing this test for free, recognizing that this important research very well might be to the advantage of people with cystinuria. If you are interested in being in the cyscap study please write to us at cystinuria@nyumc.org.

Living with Cystinuria

by Dawn Michele Bare

Living with cystinuria is no doubt a difficult struggle. I can say this not because I have the disease but three of the most important people in my life do, my children (ages 14, 13, & 10).

I initially came to know of this horrible disease 20 years ago as I wrote a research paper in nursing school on my mother. She suffers from the same diagnosis. It wasn't until my eldest, then 6 years old, became suddenly ill with pyelonephritis did we get the shocking news that ALL three of my children have cystinuria. Their Nephrologist joked with us to say we should play the lottery because the odds seem to be in our favor.

So here I am with four people in my life who all were lucky enough to inherit this rare gene that causes so much pain. I initially went through the grieving process with the loss of my children's health but quickly became focused on what was laid out in front of me. I quit my job as a RN to become, so to speak, a private duty nurse to my children and research more of what we were about to live with. The information was so different than that of 20 years ago when I couldn't even find a physician to interview who knew about this disease. I contacted the National Institute of Health (NIH), the National Organization of Rare Diseases (NORD), and even found and e-mailed a physician in Germany with a response to say that "yes, there is ongoing research". This only meant one thing to me, HOPE. I also found the Cystinuria Support Network (CSN) which, as you may know, put me in contact with a community of dedicated people who support one another as they live with the burden of kidney stones. I did all of this while managing my three kids' health, vowing to keep them stone free. I knew the possibility of their fate with these stones as my mother was not managed properly due to lack of knowledge leading her to a renal transplant (from all the stone damage over the years).

As of today, nine years into the diagnosis, I have found all three of my children to present differently with this disease process. My middle daughter, Emily, has only ever had one stone episode that would make us believe she has cystinuria. We always say if she were an only child, we would not know she is cystinuric right now. My youngest son, Bradley, has just started over the past two years to produce occasional stones requiring more medication therapy and two back to back surgical procedures in May. Unfortunately, my eldest, Allison, produces the most stones. Her condition has progressively worsened over the years, most recently passing stones weekly with no breaks. She averages 20-30 stones a month and has reached well over the thousand mark in her stone collection.

She had been averaging surgery every 3-6 months for the past few years but since her last two surgeries (last Christmas and in February) she has been able to pass stones over a cm on her own, dodging any invasive procedures.

It is extremely difficult to watch anyone suffer the excruciating pain that comes with a kidney stone. I think the hardest thing to deal with this disease process is knowing these stones will come back, knowing there is more surgery in the future and living with this TIME BOMB on a daily basis. I would have to say Allison is in pain over half of her life but the amazing thing is she embraces life so differently than the average person. Although it is hard to see your child in pain, we try to accept this as a blessing. We look to the positive, my children's great characters and love for life. I read once that cystinurics tend to embrace and enjoy life better than most people do when they are feeling well. This is so true as I watch my children every day appreciate life's simple pleasures. I use the analogy of "having a terrible headache that finally goes away." You just feel on top of the world for a while, grateful that you are better. You see things clearer and brighter. I see Allison doing this and living this way on a daily basis.

If there is one thing to come out of this article, it would be a HUGE thank you to all involved with the ongoing research to end the suffering of my children and the many who are dealing with the same pain and poor quality of life. I live life now knowing with every pain, every stone, every surgery that my children face I rise above the doubt and look to hope in that there is indeed a lighted path that will end in a cure for this awful, debilitating disease.

Making Strides to Defeat Cystinuria

- by Janice O'Connor

Cystinuria Awareness Week marked its second year this past June to raise awareness and funds to support education and research initiatives of the International Cystinuria Foundation, including support for the biennial symposiums.

In 2011, George Brown, vice president of the ICF and considered the patriarch of our cystinuric community, established the week of June 16 as a time to rally in support of the infants, children and adults afflicted with the rare, genetic disease.

"I just declared it," said George, of Northampton, Penn., who created a kit which includes sponsor sheets, letters, and a receipt for tax returns for those who donate to the nonprofit organization as a participant or sponsor of a 5K run, walk or bike event.

In 2011, an astounding \$15,000 was raised through the efforts of several of our community members, including \$11,000 raised by the Hemphill family through the generosity of friends and family in honor of their young son, Matt. Their effort raised \$5,500, which was then doubled through a company match.

"We just told people our story," said Bethany Hemphill, Matt's mother. "We just said the smallest donations would help, and we were blown away by the response. Never in a million years did we think we would raise \$11,000."

Among the 2011 events, Lisa Litwin, Dr. David Goldfarb and Frank Modersitzki and others joined others took to their bikes for an event in Brooklyn to raise funds for the cause.

This past summer's efforts yielded a commendable \$3,303 from various walks. George Brown's Pennsylvania walk netted over \$2,900, with a number of families contributing, including the Brown, Hemphill, Bare and Quinn families, as well as many individuals and companies. The Bare family raised \$1,185 this year for the Pennsylvania walk, including a \$500 donation from their church. A New England walk coordinated by Gayle Sweeney raised \$355.

Every effort helps, George said. "The walks don't have to be huge. Just get a few friends together and raise \$50." Collectively, we can take strides to defeat cystinuria.

International Cystinuria Foundation Walk in Northampton 2012, PA



George Brown, ICF VP and Organizer



Group picture



Bethany and Matt Hemphill running the 5K



Beautiful day for a walk

Internet Resources

NYU School of Medicine, Division of Nephrology - main site for the cystinuria registry

<http://medicine.med.nyu.edu/nephrology/research/current/cystinuriaregistry> -

Cystinuria Support Network, active Yahoo email group

<http://www.cystinuria.com> and <http://health.groups.yahoo.com/group/cystinuria-support-network/>

and <http://www.facebook.com/groups/2225138217/?ref=ts>

International Cystinuria Foundation

<http://www.cystinuria.org> and <http://www.facebook.com/groups/37121694952/>

Rare Kidney Stone Consortium, main consortium web site

<http://www.rarekidneystones.org>

Rare Kidney Stone Consortium

<http://www.rarekidneystones.org>

Other Facebooks sites

en espanol: <http://www.facebook.com/groups/153010944726588/>

cystinuria awareness project: <http://www.facebook.com/groups/309167699098336/?ref=ts>

<p>Calendar</p> <p>March 31, 2013</p> <p>Newsletter deadline</p>
--

This research is supported by:

