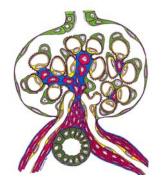
KIDNEY CARE

FALL 2016

APPROVED BY THE UNC-CH INSTITUTIONAL REVIEW BOARD



Health care professionals and patients working together to learn more about diseases that affect the filters (glomeruli) in the kidney.

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LOOKING AT HEALTHCARE FROM A PATIENT'S POINT OF VIEW

By Celeste Castillo Lee

You may have heard about Patient Centered Care. The term comes up a great deal nowadays when patients are invited to learn about their illness, to care for themselves or their loved ones, and to participate in making treatment decisions with their healthcare providers. However, you may be unsure what it really means and how it relates to you. To make it even more confusing, there are other terms such as patient voices, patient advocacy, patient activation, patient empowerment, patient preferences, patient experience, and patient engagement. Again, what do they mean? And how do they relate to you?

I am a 35-year survivor of granulomatosis with polyangiitis (also known as GPA or Wegener's disease), a vasculitis that affected my sinuses, lungs, kidneys and joints. I was a 17-year-old high school senior when the culmination of my symptoms led to a "uniformly fatal" diagnosis which completely upended my plans for college and the rest of my life. From the early stages of my diagnosis, I learned to familiarize myself with the clinical research process and how it may save my life. I realized I needed to play an active part in the treatment of my illness and in my overall health. I taught myself the language of medicine and the skills for self-care so that I could become the captain of my health care team and to have a voice in the decision-making of my care. This is how I began my personal health journey.

Patient Centeredness, which essentially means looking at health care from the patient point of view, is a complex and powerful concept in healthcare today. It is how I have interacted with all the people involved in my care, healthcare settings, and reimbursement and health policies during my healthcare journey. It is also the professional life that I have chosen so that I can contribute to making a difference in other patients' lives and healthcare experiences. Because of the limited space in this article, I cannot do justice to the full meaning of Patient Centeredness. My goal, therefore, is to use my own experience to illustrate the concept and how it is related to Patient Centered Outcomes Research (PCOR). I also want to provide a glossary of some key terms at the end of the article, which may be helpful to you.

Over the past 35 years I have become quite proficient at being an advocate for myself. In other words, I'm a "personal advocate," as I have learned to partner with my doctors, nurses, social workers, dieticians and others, and as I'm actively "engaged" or "activated" in the understanding of my illness and care. As with all of you, I know my physical, psychological, and emotional conditions better than anyone else. I'm in the best position to share that information with my healthcare team so that they can provide me the care I need. I'm also a public advocate for vasculitis and kidney disease. It means I apply my experiences towards helping others who are in a situation similar to mine and I take part in advocacy efforts to increase public awareness of vasculitis and kidney diseases and treatments, to improve patient safety and healthcare quality in healthcare settings, and to change and promote policies that positively impact patients. I'm fortunate to have helped to improve the ways healthcare professionals (medical students, nursing students, social work students, pharmacy students, health administrators, etc.) are educated by participating in the design, development and delivery of health-related information. I have been a mentor in peer mentor programs and have helped design them. Furthermore, I have been involved in research.

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NEWS FROM CAPITOL HILL: CURRENT BILLS AFFECTING KIDNEY PATIENTS

The bills below are currently being discussed in Congress. It is important for policymakers to hear from the people they represent. Use the information on the right side of the page to contact your legislators and let them know how these bills may impact you and your family.

The Living Donor Protection Act (HR 4616/S2584)

This bill was created to protect the rights of living donors and remove barriers to living organ donation . The bill would clarify that living organ donors can use leave under the Family and Medical Leave Act (FMLA) to recover from donation surgery. Employees using FMLA cannot be fired for taking this leave. This bill would also prohibit insurance companies from denying or limiting insurance coverage and from charging higher premiums for living organ donor's life, disability, and long term care plans. Finally, this bill calls for updated educational materials and public service announcements to educate the public about living organ donors and to update them on these new protections.

House Bill 1130/Senate Bill 598: Chronic Kidney Disease Improvement in Research & Treatment Act of 2015

This bill supports improvements in the research, treatment and care of chronic kidney disease. The bill has three main parts:

Improving knowledge through care management and coordination of research efforts: This bill asks the Secretary of Health and Human Services to evaluate the biological, social, and behavioral factors that affect care and submit a report on ways to improve care management, especially for minority populations. The bill also asks for greater coordination of federal research programs focused on kidney disease.

Improving access to treatment: This bill would expand pre-end stage kidney disease classes (covered under Medicare) to all patients with kidney function less than 29% who are not already on dialysis. Payment policies would also be changed to better incentivize home dialysis.

Create more insurance options and improve coordination of care: This bill would allow dialysis patients to have increased access to Medicare Advantage plans and would create a voluntary coordinated care program so health care providers and dialysis facilities can work together to improve quality of care.



WANT TO CONTACT YOUR REPRESENTATIVES AND URGE SUPPORT FOR THE BILLS LISTED?

ON THE WEB: WWW.HOUSE.GOV WWW.SENATE.GOV

BY PHONE: 1(800) 333-4636

The Renal Support
Network's Wellness &
Education Kidney Advocacy
Network is an excellent
resource for kidney patients
who want to advocate on a
national level. Please visit
www.rsnhope.org for more
information.

For more kidney disease information, internet links, and printable copies of this newsletter, check out

our website: www.unckidneycenter.org

Patient Centered Research Continued from Page 1...

Now, research. I'm far from being a researcher, in the traditional sense. And I am not referring to participation in research as a research subject. Rather, the role I have played is to work with researchers on identifying the questions that are important to ask and that are relevant from a patient viewpoint. I also help with research design to ensure the study is least intrusive to patients and protects patient confidentiality. And I provide suggestions to help researchers effectively share their research findings with targeted groups of patients, healthcare providers, and policy-makers. Essentially, I have been an equal partner in Patient Centered Outcome Research (PCOR) by providing a patient perspective throughout the entire research process. I'm not alone in being a patient partner in PCOR a revolutionary way of engaging patients in research. There are many others like me. And many more patients should, and can, be involved in PCOR. Researchers and patients speak very different "languages." To make sure that research addresses the needs of patients and that research findings can be quickly translated into routine clinical practices, researchers and patients need to learn to

WHAT PATIENTS BRING TO

PATIENT & FAMILY CENTERED

CARE

EXPERIENCE

PASSION

ANOTHER SET OF EYES

BRAIN & VOICE

DATA

INFORMATION

communicate with, understand and work with each other. After all, we share the common goal of improving the lives of those living with illness. Researcher-patient partnership is hard work and there are many barriers to overcome. But we do get better at it with practice. We, patients, should feel honored to be asked to contribute to research. The opportunity to turn our hard earned experience into lessons valuable to researchers is meaningful, and empowering.

My advocacy efforts are some of the most rewarding moments of my life. Ones that brought me joy and growth along with courage and grace. I hope you are intrigued, and seek out opportunities for yourself.

For more information on, and opportunities to participate in PCOR:

- Patient-Centered Outcomes Research Institute (www.PCORI.org)
- Vasculitis Patient-Powered Research Network (www.vpprn.org)
- American Society of Nephrology's Kidney Health Initiative (<u>www.asn-online.org/khi/</u>)
- National Kidney Foundation (www.Kidney.org)

Glossary of Terms:

- **Patient Activation**: Is similar to patient engagement, having the knowledge, skills to manage our health however one important element is that we also have the **confidence** to manage our health
- Patient Engagement: Started out as an idea to partner with patients and now defined as patient's knowledge, skills, ability and willingness to manage our health and care with interventions designed to increase our ability to selfmanage and promote positive patient behavior.
- Patient Experience: This is not an easy term to define but something that all stakeholders in health care want to measure and improve. Basically patient experience can be defined as every person, place, and policy (a set of ideas or a plan for action followed by a health care business, a government, a political party, or a group of people) that a patient comes into contact with when accessing health care. They all affect our experience with the health care organization
- Patient and Family Centered Care: Patient- and family-centered care is an approach to the planning, delivery and evaluation of health care that is grounded in mutually beneficial partnerships among patients, families, and health care practitioners. By truly partnering with patients and families not only involving them in decisions about their care, but also gaining the benefit of their help and insights to better plan and deliver care patients can achieve better outcomes, and hospitals can improve the care for all patients and increase staff satisfaction. It is not doing things for, or to patients but doing things with patients.

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RECENT PUBLICATIONS USING GDCN REGISTRY DATA

Thanks to your generous participation in our patient registries, we are able to conduct a wide range of studies to help further our understanding of glomerular (kidney) diseases. See below for some of our most recent publications. To read more, you can look up these articles on www.pubmed.com.

Studying trends in ANCA vasculitis over time

In the last 25 years, the diagnosis and treatment for ANCA vasculitis has gotten better. Investigators wanted to see if these changes have had any impact on disease outcomes. Clinical information on 554 registry patients diagnosed with ANCA vasculitis between 1985-2000 was used to study shanges in disease outcomes over time. The resu



between 1985-2009 was used to study changes in disease outcomes over time. The results showed that patients who were diagnosed in later time periods (e.g., diagnosed in 2005 vs 1985) had better survival and a lower risk of developing end-stage kidney disease (requiring dialysis or transplant) compared to patients diagnosed in earlier time periods. The study also found that patients who had better kidney function at diagnosis (and, therefore, were likely diagnosed earlier) were less likely to reach end-stage kidney disease. The rate of relapse has not changed over time. The findings from this study suggest that medical advances in managing ANCA vasculitis has resulted in improved survival and kidney outcomes but relapses continue to be an issue.

Publication Details: Trends in Long-Term Outcomes Among Patients With Antineutrophil Cytoplasmic Antibody-Associated Vasculitis With Renal Disease. Rennie L. Rhee, Susan L. Hogan, Caroline J. Poulton, Julie Anne G. McGregor, J. Richard Landis, Ronald J. Falk, Peter A. Merkel. Arthritis & Rheumatology. 2016 Jul;68 (7):1711-20.

Understanding differences in treatment in patients with focal segmental glomerulosclerosis (FSGS)

Steroids (prednisone) and calcineurin inhibitors (tacrolimus, cyclosporin) are often used in the treatment of FSGS. In this study, investigators wanted to understand why these treatments were chosen for patients and if there were any associations between choice of therapy and long-term outcomes like end-stage kidney disease. Clinical data and lab values from 458 registry patients with a biopsy diagnosis of FSGS was used for analysis. Thirty-eight percent of patients were treated with steroids only and 20% were treated with calcineurin inhibitors (CNIs) in combination or not with steroids. The decision to treat was associated with the severity of the disease at presentation (more protein in the urine, higher creatinine), and also based on the type of FSGS; patients with "tip lesion" were treated more often than others. Type of FSGS also explained a difference in which type of medication was chosen; patients with "tip lesion" were less likely to receive CNIs. Because there were so few people on CNIs alone, this study was unable to determine if they worked better than steroids. Overall, immunosuppression with steroids and CNIs in patients with FSGS was associated with more preserved kidney function resulting in better long-term outcomes (less end-stage kidney disease).

Publication Details: **Treatment with Glucocorticoids or Calcineurin Inhibitors in Primary FSGS.** Louis-Philippe Laurin, Adil M. Gasim, Caroline J. Poulton, Susan L. Hogan, J. Charles Jennette Ronald J. Falk, Bethany J. Foster, Patrick H. Nachman. Clinical Journal of the American Society of Nephrology. 2016 Mar 7;11(3):386-94.

Risk of cardiovascular events in patient with membranous nephropathy

Research has shown that patients with a diagnosis of membranous nephropathy (MN) have a high risk of developing blood clots in veins (often in the legs). A related issue that has not been studies well is the risk of clots in the arteries, especially in the heart. These are called cardiovascular events, or CVEs. Investigators reviewed clinical data from 404 GDCN registry participants to better understand the risk of CVEs in patients with MN. They also compared the data from patients in the GDCN to data from patients in a Canadian registry.

(continued on next page)

CUREGN UPDATE

The Cure Glomerulonephropathy Network (CureGN) is a study of 2,400 children and adults with glomerular disease. The glomerular diseases this study focuses on are minimal change disease (MCD), focal segmental glomerulosclerosis (FSGS), membranous nephropathy (MN), and IgA nephropathy (IgAN). You may be eligible for this study if you have been diagnosed with one of these four diseases and had your first kidney biopsy in the past 5 years.



Participants in CureGN are included in a registry of patients who provide data via blood and urine samples as well as clinical information, pathology reports and health histories, similar to the way the GDCN registry is organized.

De-identified data collected from patients is stored in two central locations (National Institutes of Health and Arbor Research Collaborative for Health) and researchers will be able to look at the information obtained in different ways in order to be able to learn more about glomerular disease, hopefully leading to better care for patients affected by these conditions.

Recruitment into CureGN is already happening in the US, Canada, and Italy and clinical data and samples are currently being collected. In the fall, we will begin to ship kidney biopsy slides to the NIH to be scanned into a digital database for researchers to use to further their investigations.

Overall, the study has enrolled 1455 participants, and 164 participants have been recruited through UNC and the GDCN. Coordinators at UNC are currently able to see participants across the state with clinics in Asheville, Wilmington, and Chapel Hill.

For more information, please contact Maggie D'Angelo at 919-445-2682 or maggie_dangelo@med.unc.edu. You can also visit **www.curegn.org.**

This study will help researchers learn more about the causes of glomerular disease and the treatments available, leading to better care for patients like you.



(Recent Pubs, continued from page 4)

The results showed that there was an increased risk for having a CVE, especially in the early stages of the disease if patients presented with high levels of protein in their urine or low levels of albumin in the blood. But events also happened later in the disease when lab values were within a more normal range. The findings suggest that health care providers should focus on prevention of CVEs, especially early in the disease course when protein levels are high.

Publication Details: Patients with primary membranous nephropathy are at high risk of cardiovascular events. Taewoo Lee, Vimal K. Derebail, Abhijit V. Kshirsagar, Yunro Chung, Jason P. Fine, Shannon Mahoney, Caroline J. Poulton, Sophia Lionaki, Susan L. Hogan, Ronald J. Falk, Daniel C. Cattran, Michelle Hladunewich, Heather N. Reich, Patrick H. Nachman. Kidney International. 2016 May;89(5):1111-8

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AUTOIMMUNE DISEASE AND FATIGUE: WHAT DO PATIENTS SAY?

A recurrent theme in communication with autoimmune disease patients is the subject of fatigue – the bone-tired, always present, misunderstood drag of autoimmune-caused fatigue. Neither the fatigue nor the cries for help go away. What can we do? Step one: Show the extent of the problem. Thus was born the survey "Autoimmune Disease and Fatigue: Patients Speak."

As one autoimmune disease patient says, "Fatigue is probably the most debilitating symptom of having an autoimmune disease." Her comment is not surprising since in a recent survey conducted by the American Autoimmune Related Diseases Association (AARDA), 98 percent of respondents reported suffering from fatigue and 89 percent said that fatigue is a major issue for them. This fatigue is not simply "tiredness" that everyone experiences at various times but a life-altering state.

Of the 7,838 respondents whose survey forms were analyzed, 89 percent indicated that their overall quality of life was affected by fatigue; and 78 percent indicated that their career/ability to work and their romantic relationships were impacted by fatigue. Other areas impacted by fatigue were sense of self-esteem, 69 percent; professional relationships, 65 percent; finances, 61 percent; and parenting abilities, 47 percent. As one patient commented, "Life as I knew it no longer exists."

When asked whether they believe that others judge them negatively because of the fatigue, 70 percent of respondents said, "Yes."

A source of great concern for autoimmune disease patients is the lack of understanding by their support systems –families, friends, and health care professionals – for the depth of their fatigue. Although 90 percent of the respondents said that they had discussed the intense fatigue with their families and friends, only 23 percent said that their families and friends understood while 49 percent said that they did not take the fatigue seriously.

Receiving understanding and help from their doctors was a problem for many autoimmune disease patients. While 87 percent of the respondents said that they had discussed with their doctors the fatigue they were experiencing, only 48 percent took their problem seriously and only 37 percent had prescribed or suggested treatment options for the fatigue. When asked whether their primary care doctor had suggested that they contact a mental health professional as a result of their fatigue, 80 percent said, "No"; and, in fact, only 29 percent said that they had sought professional mental health treatment as a result of their fatigue.

According to one autoimmune patient, "It's difficult for other people to understand our ongoing fatigue when it can't be seen by them. It's so hard just trying to get others to really, really understand how very tired you are sometimes – even our own doctors don't understand. One wonders if even our doctors may think we are for the most part just mental cases or whiners."

While family relationships, not the least of which includes parenting, are affected by the autoimmune-caused fatigue, the resulting economic hardship on many is a cause for very practical concern. When asked whether they or their family are in financial distress as a result of their autoimmune disease-related fatigue, 55 percent said, "No," while 37 percent said, "Yes"; and 21 percent said that fatigue had caused them to lose their job.

The sense of emotional well-being has been affected by the ongoing fatigue. Increased emotional stress has been experienced by 88 percent of the respondents; sense of isolation, 76 percent; anxiety, 72 percent; and depression, 69 percent, although, as previously stated, only 29 percent reported that they had sought professional mental health treatment. The survey did not ask whether that treatment had proved helpful.

"One day at a time is what I'm learning to accept," wrote one respondent. "It's still so hard wanting to have our life the way it was. I am in a battle with the mind and emotions thinking about what has been taken and then being grateful for what I still have."

In this busy, busy world, it's normal to be tired; but the kind of fatigue autoimmune disease patients suffer is anything but normal. For too long, this problem has been ignored; yet through its overwhelming response, the AARDA survey shows without a shadow of doubt that fatigue in autoimmune disease is not an elusive complaint—it's real.

What is the hoped-for outcome of this online public opinion survey? The survey results should prompt fruitful conversation about autoimmune caused fatigue, not only among the patients themselves but also among researchers – and financial supporters – who will see this as a cause for academic research. In the view of AARDA representatives, the subject of the debilitating effects of fatigue in autoimmune disease has not been properly addressed. For too long, it has been ignored and/or misunderstood by the medical community and the public at large.

This article was excerpted from American Autoimmune Related Diseases Association, Inc., Infocus, Vol.23 No.2, June 2015

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Taking Control of Your Medical Care: Advance Care Planning

An important but difficult part of planning for the future is thinking about what may happen if a critical medical situation arises and you are unable to speak for yourself and make decisions about your health care. Advance care planning (ACP), is a way of making your medical preferences known to friends, family, and medical providers, and can help ensure that you get the type of care that is right for you in a critical, life threatening, or end of life situation. Communicating your wishes is especially important if you live with multiple, chronic medical conditions, as you may have a higher risk for serious medical events. By writing down and communicating your preferences clearly through a legal document called a living will or advanced directive, you can remove the possible burden from your family to make tough decisions about your end of life care. An advanced directive can also help health care providers identify your wishes and use them to guide their decision making process in critical medical situations.

Steps for advanced care planning:

 Get information on the types of life-sustaining treatments that are available. Let your doctor/healthcare provider know you interested in are working on advance care directives and ask them to explain treatments and procedures that could be used in a medical crisis.



- Once you have the information you need, decide next what types of treatment you would or would not want if you are diagnosed with a life-limiting illness.
- Share your personal values with your loved ones so they understand your wishes and can help make decisions if a legal, written document is not put in place. To start a discussion with a loved one, try playing the "Go Wish" game together online (www.gowish.org).
- Complete advance directives to put into writing the types of treatment you would or would not want and choosing who you would like to speak for you if you are unable to speak for yourself. The laws governing advance directives vary from state to state, so it is important to complete and sign advance directives that comply with your state's law. The website www.caringinfo.org has advanced directive instructions for every state.

Here are some of the questions you may want to think about and discuss with others:

- Who do you want to designate to make medical decisions for you if you are unable to make them?
- What kind of medical treatment would you want to have? And what treatment would you not want? For example, Do you want to be kept on a respirator? Do you want to be fed through a tube? Under what circumstances?
- If your heart stops or you stop breathing, do you want medical staff to try to bring you back to life?
- If you are currently on dialysis, do you want to continue dialysis if you become very ill or close to dying?

Other Resources:

- Caring Info (Info, resources, state-specific advance directive documents): <u>www.caringinfo.org</u>
- Making Your Wishes Known (online decision aid): www.makingyourwishesknown.com
- Compassion & Choices (information, tool-kits): www.compassionandchoices.org
- MyDirectives (online platform for advanced directives): <u>www.mydirectives.com</u>

STUDIES CURRENTLY RECRUITING GDCN PATIENTS

The GDCN and the UNC Kidney Center are actively recruiting patients into the studies listed below and on the next page. Please contact the study coordinator listed at the bottom of page 9 if you are interested in learning more.

ANCA VASCULITIS:

Study name and sponsor	Study Doctor	Study coordinator	More about the study
PEXIVAS (NIH)	Patrick Nachman	Anne Froment Sandy Grubbs	Patients with new or relapsing disease will be treated with standard of care with or without the addition of plasmapheresis.

NEPHROTIC SYNDROME

Study name and sponsor	Study Doctor	Study coordinator	More about the study
C-NEPTUNE (NIH)	Keisha Gibson	Sandy Grubbs	Observational study of children newly diagnosed with Nephrotic Syndrome. Before renal biopsy and < 30 days of treatment.
CureGN (NIH/NIDDK)	Ronald Falk	Maggie D'Angelo	Observational study of children and adults with MN, FSGS, IgA, or Minimal Change Disease biopsied in the last 5 years.
APIXABAN	Vimal Derebail	Anne Froment	Study to understand how Apixaban works in patients with nephrotic syndrome. Blood and urine are tested before, 3,6,and 24 hours after taking one dose of Apixaban.
ECHO Study for CureGN/ NEPTUNE participants	Keisha Gibson	Sandy Grubbs	Observational study: evaluating cardio- vascular health in children already en- rolled in NEPTUNE and CureGN study. Will have echocardiogram and 24 hour

DIABETIC KIDNEY DISEASE

Study name and sponsor	Study Doctor	Study coordinator	More about the study
VPI-CLIN-201 (Vascular Pharmaceuticals)	Amy Mottl	Sandy Grubbs	Subcutaneous injection every 2 weeks (by yourself, at home, after training).
Phenotypes of Diabetic Kidney Disease and Relationship to Retinal Disease (PDKDR) (NIDDK)	Amy Mottl	Sandy Grubbs	Observational study

STUDIES CURRENTLY RECRUITING GDCN PATIENTS

LUPUS

Study name and sponsor	Study Doctor	Study coordinator	More about the study
STOP SLE (Broad Institute)	Will Pendergraft	Brenda Meier	An observational study to identify differences between patients with lupus nephritis who respond to standard therapy and those who do not with the goal of helping physicians develop effective individualized treatment plans based on characteristics of each patient's blood.
PEARL (Accelerating Medicines Partnership)	Will Pendergraft	Brenda Meier	A specimen collection study devoted to molecular analysis of kidney tissue, blood and urine of patients with lupus nephritis .
BLISS-LN (HGS-GSK)	Will Pendergraft	Brenda Meier	Monthly IV infusion of Belimumab or Placebo for treatment of lupus nephritis along with standard of care (either Cytoxan or cellcept) .
Boehringer Ingelheim – 1293.10 (BI 655064)	Will Pendergraft	Brenda Meier	Subcutaneous injection each week (self- administered at home after training) plus myco- phenolate mofetil (cellcept) and steroids for treatment of lupus nephritis.
CALIBRATE: Rituximab/ Cytoxan/Belimumab (Immune Tolerance Net- work)	Will Pendergraft	Brenda Meier	Treatment study using FDA-approved IV drug for patients with lupus nephritis.

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Informative. Inspirational. Entertaining.



GETTING READY FOR FLU SEASON

The Centers for Disease Control (CDC) lists patients with kidney disease as a high-risk group that may face special medical challenges during flu season, and suggest that all individuals be vaccinated against the flu. For the 2016-2017 season, CDC recommends use of the flu shot (inactivated influenza vaccine or IIV) and the recombinant influenza vaccine (RIV). The nasal spray flu vaccine (live attenuated influenza vaccine or LAIV) should not be used during 2016-2017. In general, the nasal spray is not good for persons with kidney disease or family members because it is a live virus and can be damaging to already compromised immune systems.

What's new this flu season?

- Only injectable flu shots are recommended for use this season.
- Flu vaccines have been updated to better match circulating viruses.
- There will be some new vaccines on the market this season.
- The recommendations for vaccination of people with egg allergies have changed.



What viruses do 2016-2017 flu vaccines protect against?

There are many flu viruses and they are constantly changing. The composition of U.S. flu vaccines is reviewed annually and updated to match circulating flu viruses. Flu vaccines protect against the three or four viruses that research suggests will be most common. For 2016-2017, three-component vaccines are recommended to contain:

- A/California/7/2009 (H1N1)pdm09-like virus,
- A/Hong Kong/4801/2014 (H3N2)-like virus and a
- B/Brisbane/60/2008-like virus (B/Victoria lineage).

Four component vaccines are recommended to include the same three viruses above, plus an additional B virus called B/Phuket/3073/2013-like virus (B/Yamagata lineage).

When and how often should I get vaccinated?

Everyone 6 months and older should get a flu vaccine every year by the end of October, if possible. However, getting vaccinated later is OK. Vaccination should continue throughout the flu season, even in January or later. Some children who have received flu vaccine previously and children who have only received one dose in their lifetime, may need two doses of flu vaccine. A health care provider can advise on how many doses a child should get.

How do I know if I have the flu?

You may have the flu if you have some or all of these symptoms: fever, cough, sore throat, runny/stuffy nose, body aches, headache, chills, fatigue, nausea/vomiting.

What should I do if I get sick?

Since you are in a high risk group, if you develop flu symptoms you should call your health care provider for advice. Your doctor may prescribe antiviral drugs that can treat the flu. Most people with the flu have mild illness and do not need medical care or antiviral drugs. If you get sick with flu symptoms, in most cases, you should stay home and avoid contact with other people except to get medical care.

For more information, please visit www.flu.gov.



GLOMERULAR DISEASE COLLABORATIVE NETWORK

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www.unckidneycenter.org