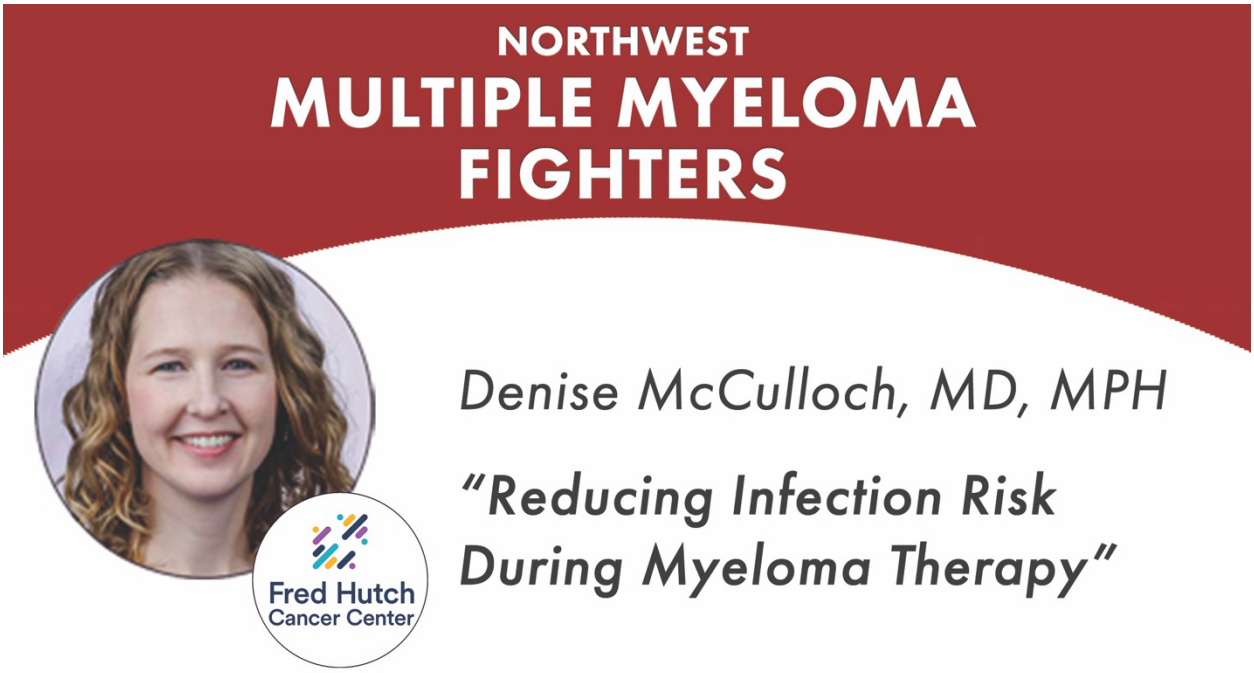

Edited transcript of audience questions and answers

Q. The slide on treatment impacts on the immune system showed more items under daratumumab. Does that mean daratumumab is more immunosuppressive?

A. Not necessarily. The slide was an oversimplification. More listed targets doesn't mean greater immunosuppression. It simply shows that daratumumab affects certain immune targets, and each myeloma therapy affects the immune system in its own way.

Q. In what specific ways does carfilzomib (Kyprolis) affect the immune system?

A. Carfilzomib, like bortezomib, particularly impacts T cells, which are important for fighting viral infections. Common associated infections include VZV (shingles) reactivation and respiratory tract infections such as colds and flu. That T-cell impact is a key reason for those patterns.

Q. Can Pemgarda (pemivibart) be given preemptively to prevent COVID? And does ensitrelvir (Xocova) have drug interaction problems like Paxlovid?

A. Yes, Pemgarda is given preemptively. For example, if a COVID surge is expected, you might receive it in clinic before starting certain chemotherapy, functioning like a vaccine alternative for patients who cannot mount a vaccine response.

Regarding ensitrelvir, it has not yet been approved, so prescribing experience is limited. However, several next-generation oral COVID antivirals are specifically being developed to avoid the drug-drug interaction problems that make Paxlovid so difficult for many patients. Whether ensitrelvir is among those is not yet confirmed.

Q. I had a stem cell transplant three years ago and completed all recommended vaccinations, but my own lab tests suggest some didn't produce an immune response. Is that common?

A. Post-transplant vaccination timing is designed to allow enough immune recovery for an effective response, balanced against not waiting so long that you remain unprotected. In most cases, the timing works. But individual situations vary. If your labs suggest a weak response, that's a legitimate concern worth discussing with your team. Ask whether you need boosters or additional testing. General protocols are applied broadly, but your situation may warrant individualized attention.

Q. What are your thoughts on supplements that claim to boost immunity? Are there any you recommend?

A. I'm very skeptical. The supplement industry generates billions annually with little to no evidence of benefit. It can exploit fears about infection to sell expensive, unproven products. Your resources are finite, and those dollars might be better spent on a gym membership or healthier food.

More importantly, supplements can cause harm. There has been an increase in hospitalizations and ER visits for liver injury and other toxicities from supplements. Because they're not regulated to the same standard as drugs, you could be ingesting something dangerous. They can also interact with cancer medications. Always tell your team what you're taking or considering, and discuss what you're hoping to gain from it.

Q. What types of infections are most dangerous for myeloma patients? Which vaccines should we prioritize?

A. Viral infections are a significant concern. Key vaccines include flu, COVID, RSV, and shingles. Age-appropriate pneumonia vaccination is also important. Additionally, Tdap deserves attention. The "P" stands for pertussis, and cases have increased in the U.S. in recent years. Boosters are generally due every 10 years. As always, have an individualized conversation with your team about which vaccines you're current on and which you may need.

Q. I'm post-therapy and on lightweight maintenance. Should myeloma patients over 60 get the RSV vaccine as prevention, especially during a treatment pause?

A. It makes sense if you fall into the recommended categories. The strongest emphasis is for patients over 75, since age is one of the biggest RSV risk factors. But if you're over 60 and on a therapy pause, that can be a good window because your immune system is better positioned to respond. We don't yet know whether a booster will be needed later. If the vaccine's protection wanes, you'll likely need one. But protecting yourself now is worthwhile.

Q. I'm preparing for CAR T-cell therapy. My team offered Pemgarda beforehand. It's described as investigational. Should I accept it?

A. The "investigational" label reflects that Pemgarda is still under Emergency Use Authorization (EUA), the same approval pathway used for many COVID treatments and vaccines during the pandemic. There is data supporting its effectiveness; I would not consider it truly experimental at this point.

After CAR T-cell therapy, cell counts drop significantly. Some patients' lymphocytes remain low for an extended period, and low lymphocytes are a major risk factor for viral infections including COVID, RSV, and flu. Viral infections are among the most common complications after CAR T.

The main risk of Pemgarda is infusion reaction, with anaphylaxis occurring in roughly 1% of cases. It's administered in a monitored clinical setting. If a family member of mine were getting CAR T, I would probably recommend Pemgarda for that extra layer of COVID prevention.

Q. After my temporary line placement before CAR T harvest, my right ear went numb and has stayed numb. Has anyone seen this?

A. I haven't personally encountered that. It sounds like possible irritation or injury to a nerve in that area during the line placement. It's somewhat outside my area of expertise, but the timing strongly suggests a connection. Check in with your team about it.

Q. What is the recommended cadence for COVID vaccination? Once a year or every six months?

A. It depends on your treatment status and immune function. If you're still significantly immunocompromised, twice a year is reasonable. After a COVID shot, antibodies rise then begin declining around three months out. Each booster provides a temporary spike in protection.

Timing matters. A fall booster (around October) gives good protection heading into Thanksgiving and winter holidays when people gather and spread viruses. If there's a corresponding summer COVID surge, typically around July, a second dose may make sense, especially if you're traveling, attending events, or have additional risk factors.

Whether indefinite twice-yearly boosting remains beneficial long-term is still an open question.

Q. What counts as "relatively immunocompromised"? For example, if I'm on lenalidomide 5 mg daily, 21 of 28 days, plus the myeloma itself, does that qualify?

A. It's a gray area and hard to quantify. One indicator is your cell counts, particularly lymphocytes, which are critical for fighting viral infections. If they're low, that suggests meaningful immunocompromise.

On the other hand, if you're less immunocompromised, you may actually mount a stronger vaccine response. Given that COVID ranges from a mild sniffle to something that really knocks you down, being on any active treatment is reasonable grounds to pursue more frequent boosters if you want that extra protection.

Q. After transplant, we essentially start over immunologically. Is there a comprehensive chart of recommended vaccines, and can titers help us know where we stand?

A. The most detailed source is your transplant team's protocol, which can run thousands of pages. As a simpler starting point, the ACIP (CDC) adult vaccine schedule lists all recommended vaccines, with sections addressing immunocompromised patients. It can be dense reading, but it gives you the full menu: varicella, Tdap, pneumonia, flu, COVID, and so on.

For titers, many vaccines have them available. Hepatitis B and MMR, for example, can be checked to see if you mounted an adequate response. Titers aren't recommended for the general population because of cost, but on an individual level, they're very reasonable. Print out the ACIP list, sit down with your doctor, and work through it: what you've received, what you might be vulnerable to, and whether titers make sense for specific vaccines.