Comments for House Human Services Committee

S. 216 - An act relating to the administration of Vermont's Medical Marijuana Registry

Caroline Tassey MSN APRN

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My name is Caroline Tassey and I am here to support this bill including the language preventing discrimination in medical care and organ transplant for patients using medical cannabis. I have been a nurse for almost 40 years and a nurse practitioner since 1991. I have been an employee of the medical center almost continuously since 1980 and have been the nurse practitioner for the Renal Program, including Transplant, for the past 16 years. In that time, I've worked with, altogether, 7 transplant surgeons. Prior to 2016, we've transplanted a number of patients who were using marijuana and, later, medical cannabis. Some of you may recall that one of the people who fought strongly for the medical cannabis bill was a dialysis patient's mother. That patient, by the way, was transplanted several years ago and is doing well. In the last 18 months, though, I've been contacted by dialysis nurses and other staff on behalf of patients who have called to schedule an appointment for evaluation to get on the transplant list and been denied an appointment because they were using medical cannabis – and I knew this was, indeed, the case although there is no formal medical center policy addressing this issue.

Why would dialysis patients apply to use medical cannabis? These are not adolescents or young adults, but **50-60-70 year old Vermonters trying to cope with a difficult treatment**. Nausea, vomiting and loss of appetite are the most common reasons. Dialysis can only do so much to remove "toxins" from the blood. Toxins like potassium and phosphorus that are healthy, normal ingredients in many foods. So, patients need to restrict their diets to reduce what they take in. Dairy products, potatoes, peanut butter, citrus fruits, tomatoes, bananas and others all have to be restricted. The diet is quite limited. Patients take multiple medications, lots of pills at the same time, and some must be taken with each meal to decrease absorption from foods. Patients often complain food just doesn't taste right, it tastes metallic. Many times after transplant, patients have told me food tastes good again. Many patients have a hard time sticking to the diet and so toxins accumulate. Cannabis helps with nausea and improves appetite.

The first medical cannabis legalization bill was passed in California in 1996. While it is true that we don't know everything we would like to know about cannabis and the immune system or immunosuppressant medications, numerous patients across the country receive kidney transplants every year. There have been isolated case reports of infection attributed smoking contaminated street marijuana after transplant, but these remain rare. On the other hand, there are also ongoing trials in Israel showing that cannabinoids could be helpful in stem cell transplants (that's bone marrow transplant). In 2016 there were over 33,000 kidney transplants in the US. There were 1400 kidney transplants in California alone and at least some percentage of those recipients were using cannabis.

Many states medical cannabis' law contains language prohibiting discrimination in medical services and **7 states, including New Hampshire, specifically prohibit medical cannabis as the sole criterion for**

denying patients access to transplant. (There is also a bill to this effect pending in the Maine legislature initiated after a man who had been on the transplant wait list for 7 years was removed because he started using medical cannabis.)

So, I am here to advocate for our Vermont patients. Dialysis patients who are using a medication approved by either their nephrologist or primary care provider to cope with the side effects of their treatment – a medication that you authorized them to use – should not be denied access to a treatment with a better quality of life, often longer life and better health – that is kidney transplant – on that basis alone.

DATA

States: Arizona, California, Delaware, Illinois, Minnesota, New Hampshire, Rhode Island and Washington.

Bangor Daily News 3/29/2017

Robinson RH, Meissier JJ, Breslow-Deckman JM, Gaughan J, Adler MW & Eisenstein TK (2013.) Cannabinoids inhibit T-cells via cannabinoid receptor 2 in an in vitro assay for graft rejection, the mixed lymphocyte reaction. *Journal of Neuroimmune Pharmacology* 8(5):1239-1250.

Yeshurun M, Shpilberg O, Herscovici C, Shargian L, Dreyer J, Peck A, Israeli M, Levy-AssarafM, Gruenewald T, Mechoulam R, Raanani P & Ram, R (2015). Cannabidiol for the prevention of graft-versus-host disease after allogeneic hematopoietic cell transplantation: Results of a phase II study. *Biology of Blood and Marrow Transplantation* 21:1770-1775.

Scott, JC, Slomiak ST, Jones JD, Rosen AFG, Moore TM and Gur RC (April 18 2018). Association of Cannabis with Cognitive Functionin in Adolescents and Young Adults: A systematic Review and Meta-analysis. JAMA Psychiatry *doi:10.1001/jamapsychiatry.2018.0335*

Associations between cannabis use and cognitive functioning in cross-sectional studies of adolescents and young adults are small and may be of questionable clinical importance for most individuals. Abstinence of longer than 72 hours diminishes cognitive deficits associated with cannabis use…previous studies may have overstated the magnitude and persistence of cognitive deficits associated with use. Reported deficits may reflect residual effects from acute use or withdrawal.