

From Tel Aviv To Sonoma County

# Nursing home staffers document a versatile boon for the elderly

**Hadarim** by Zach Klein

The option of using cannabis for medicinal purposes in Israel was publicized in *“Prescribed Grass,”* a documentary I produced that was released in September 2009. A few months later I received an unexpected phone call:

“Hi. my name is Inbal Sikorin and I’m the head nurse of the Hadarim nursing home. One of our patients got a license for using cannabis and I don’t know what to do with it. I want you to come and help us.”

“Why me?” I asked.

“A family member of the patient saw your movie, applied for a license, and now we have it here and we don’t know what to do with it. You made that documentary and you probably know something about it.”

So I went to Kibbutz Na’an for a visit to the Hadarim nursing home—a 36-bed skilled nursing facility. Patients admitted to Hadarim have difficulties coping with the required activities of daily living. Inbal introduced me to the patients and I became their cannabis consultant.

**1<sup>ST</sup> Case: Mrs. A.**

She was a 75-year-old lady, sitting on her wheelchair, groaning. She had been diagnosed with severe dementia. Not responding to anything. Just groaning. Inbal said she had been that way for months. She had no appetite and had been losing weight rapidly. The nursing team called her, not without affection, “the tiger.”

At that time patients in Israel received cannabis only as dried flowers for smoking. But smoking a cigarette was not physically possible for Mrs A. So I had to hold the cigarette an inch from her mouth and puff some smoke towards her. It did the trick.

A few minutes after she inhaled she stopped groaning. Her eyes stopped running around unfocused. She responded when we spoke to her. And for the first time since she was admitted at Hadarim, she smiled and laughed. That was the first time anyone at the ward had seen her laughing or smiling.

That experience led to another license in the nursing home and a few months later another one.

**Methods of administration**

A lot of improvisation was needed at the beginning. A member of the kibbutz built a simple smoke machine, so the nurses could use the herb.

Later on we established more convenient ways for treating the disabled patients. Vaporizing and ingesting decarboxilated dried cannabis were introduced. Buds were finely ground and mixed with porridge. The starting dose was 0.08 grams, which was raised to 0.12 grams and then 0.25 grams three times a day.



SPASTICITY (CLENCHED FISTS IN PHOTO AT LEFT) IN A HADARIM PATIENT WITH MULTIPLE SCLEROSIS WAS RELIEVED WITHIN MINUTES OF CANNABIS INHALATION.

The Ministry of Health issued a special license enabling the nursing home to use cannabis to treat patients.

The small, obscure facility became a pilgrimage site for journalists from all over the world as it was the first officially government-approved cannabis-friendly nursing home.

**Return to Hadarim**

In 2013, three years after my first visit, as a master’s candidate at Tel Aviv University’s Porter School of Environmental Studies, I came back to Hadarim to conduct research for my thesis. At this time 27 of the 36 patients were being treated with cannabis.

What is the connection, you may wonder, between environmental studies and cannabis use at a nursing home? The answer lies in the reduction of pharmaceutical drugs polluting the water supply. Thus my main goal was to assess whether cannabis could substitute for prescription medications.

To determine how cannabis use affects patients’ well-being and their use of other medications, I reviewed the files of the 27 patients using cannabis for various conditions. Quality of life as described by the Hadarim staff was essential data.

Cannabis was prescribed for:

Pain (18 patients), Appetite (9), Spasticity (7), Agitation (3) Parkinson’s (2), Tremor, Ataxia, Insomnia, and Mood (1 each). Some patients were prescribed cannabis for more than one medical condition.

Four types of cannabis were used at Hadarim:

- Flowers of a high-THC strain with more than 20% THC and no CBD
- A mixture of flowers and trim that contained 8 % THC and no CBD.
- A balanced strain that contained 12% THC and 12% CBD
- A CBD-rich strain with 16% CBD and 1% THC

All were provided by Tikun Olam (a company licenced by the Israeli Ministry of Health to grow cannabis for medicinal use) and analysed at Hebrew University by professor Lumir Hanus.

Most of the patients (22) received cannabis mixed with porridge. Others smoked or vaporized. Most of those who inhaled moved on to digesting cannabis in edible form.

**Mrs. A revisited**

The first patient, Mrs. A, continued with treatment, inhaling 0.3 grams of Cannabis flowers in our smoke machine and later on with a vaporizer

Her weight loss was halted when she started using cannabis and remained stable for one year. The next year she even started gaining some weight.



continued on next page

**Primrose** by Jeffrey Hergenrather

Philip Grob, MD, a geriatric psychiatrist in Santa Rosa, California, who had been referring patients to me to evaluate for cannabis use, began to take on that role himself a few years ago. Dr. Grob told me he had approved cannabis for several Alzheimer’s dementia patients who had been admitted to an assisted living facility and the effects were visibly beneficial. He suggested that we collaborate on a formal study to measure the impact of cannabis on the symptoms of Alzheimer’s, which include tremors, pain, and agitated behaviors.

*In an assisted living facility patients are able to get a cannabis recommendation from their doctor. The doctor then writes the orders to the nursing staff so that they can administer the medicine.*

Primrose is a privately owned residential care facility for the elderly (RCFE). It is licensed under California’s Department of Social Services—unlike nursing homes and skilled nursing facilities, which are licensed under Health and Human Services and have more rigorous rules covering how medicine is administered.

In an assisted living facility patients are able to get a cannabis recommendation from their doctor. The doctor then writes the orders to the nursing staff so that they can administer the medicine in such and such a way. Thus Dr. Grob and the nurses at Primrose were able to use cannabis in the treatment of Alzheimer’s disease.

The incidence of Alzheimer’s is growing exponentially worldwide. The disease is progressive and irreversible. It slowly destroys memory, thinking skills, reasoning, and eventually the ability to carry out the simplest of tasks. It’s the leading cause of dementia in the elderly, affecting approximately 5.1 million Americans. Dr. Grob says the incidence is really much higher than that and I would tend to believe him from what I’m seeing in practice as well.

In the mild form, memory worsens. Problems include getting lost, trouble handling money and paying bills, repeating questions, taking longer to complete normal tasks, using poor judgment, and having mood and personality changes.

We all know of people with mild forms of dementia. In the moderate form confusion worsens and there’s difficulty in recognizing family members and friends. The patient may start having hallucinations or delusions, paranoia, and they become impulsive. The patients wander off, they’re confused, they don’t recognize people. There is a break point in many cases when a working family can no longer cope.

So with great grief they bring their family members to a place like Primrose, and the guilt they feel in doing this is huge. If we can make patients and families feel better, it’s very important. In the severe form of Alzheimer’s people can no longer communicate, they’re completely dependent on others

for care. At Primrose there are many patients who fall into this category.

The facility is beautiful. It’s a large campus that has lots of grassy lawns, there’s play areas for kids who are brought on visits and places for people to sit outside and enjoy the environment. There are flower gardens and a day club for activities so the more able patients can get involved in games or movies.

Despite its placid appearance, Primrose is a locked-down facility. There are fences around the perimeter, there are walls that are too high to climb, the gates are monitored 24 hours a day by cameras so that no one gets in or out without being buzzed in. So patients are not getting lost, even though they can wander out the doors. The staff keeps track of them and they do a great job at that.

*A black-box warning means that the use of these drugs is associated with an increased risk of death in elderly patients with dementia.*

Agitated behaviors are common in dementias. The allopathic response is the “chemical restraints of medications,” but the FDA has no approved medications for agitation, which is a hallmark of dementia. Conventional medications include antidepressants, anxiolytics, antipsychotics, sleep meds, pain meds—all the usual suspects. They are ineffective. Behaviors worsen, the amount of medicine goes up.

Many of the meds being used have black-box warnings. If you pull out the package insert you’ll see a black box in the tiny-font description of the drug. A black-box warning means that the use of these drugs is associated with an increased risk of death in elderly patients with dementia.

Some nurses have been traumatized by administering these drugs on orders from doctors and then having unexplained deaths among their patients. I’ve had it happen to my own patients prescribed these drugs by their other doctors. It’s very sad when people who you think have a chance to do better, and seem well otherwise, suddenly, unexpectedly die under the influence of these black-box-warning medications.

Primrose facility president, John Wotring,

continued on page 27



PHILIP GROB, MD, writes cannabis approvals for patients and orders for nurses at Primrose



*Hadarim Nursing Home* from previous page



During the first few months of her treatment the use of her other medications was discontinued. These included Clonex (Clonazepam) as an anxiolytic, phenergan as a sedative, Ebixa (Memantine) for Alzheimer’s, and Seroquel as an antipsychotic.

**2<sup>ND</sup> Case: Mr. G.**

Mr. G. was born in 1920 and admitted at age of 89.

He was diagnosed with Parkinson’s. Five years before arrival he had a stroke and was confined to a wheelchair. He suffered from spasticity and pain. Excess saliva dripped from his mouth. He had repeated flare-ups of arthritis. He was deeply depressed and crying a lot.

He was treated with different medications for Parkinson’s, pain, gastrointestinal problems and gout. He was given an enema once a week. The medical team wanted to

find a solution for his constant pains.

The treatment for Mr. G. was 0.5 grams of shredded cannabis flowers from a high THC strain, inhaled from a Volcano vaporizer three times a day.

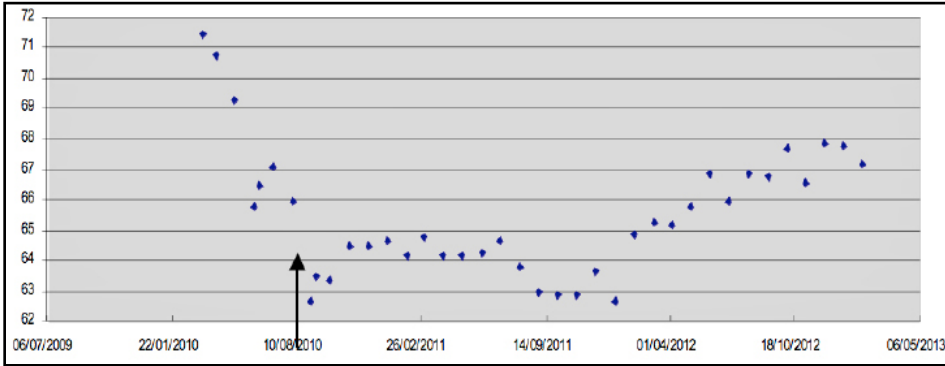
Almost immediately after treatment, Mr. G was free of pains, sitting upright in a chair, alert, and in good spirits. His salivation was significantly reduced, his muscles became less rigid and less cramped, his appetite improved and he ate better, no flare-ups of arthritis occurred, and his recurrent infections were reduced to zero.

The first medications Mr. G discontinued were painkillers, Lyrica and tramadex. Later on he was able to get off dopicar and comtan for the Parkinson’s. And finally the use of colchicine for gout was discontinued.



These two cases, though dramatic, were typical of the 27 I reviewed. Collectively the patients experienced:

- Pain relief —and discontinuation of prescription painkillers.
- Improvement of appetite and weight gain.



WEIGHT LOSS BY MRS. A reversed after cannabis use began in August 2010 (arrow). Vertical scale gives weight in kilograms. Horizontal scale shows time from July 2009 through June 2013.

# The Nurse as Organizer

By Karen Mankins, RN

I work at a Residential Care for the Elderly facility, a “life care community” which involves three levels of care: Independent, Assisted, and Skilled Nursing. I am the administrator for Assisted Living.

In the fall of 2012 a resident’s daughter asked me to talk to her mother’s physician about medical marijuana to treat her severe chronic back pain. (Three compression fractures to her low back despite numerous medical procedures.)

So the following day I talked with her physician and without hesitation he took out his script pad and wrote a recommendation for Cannabis for her pain!

I was completely surprised, I didn’t think he would. I expressed that to him and he stated, “Karen, I’d much rather have my patients on this then all the other crap they are taking!”

I returned to my desk and I’m holding in my hand an order for cannabis for chronic pain. How do I order this? Who do I call?

The first thing I did was call the California Department of Social Services (DSS). I asked if there were any regulations for cannabis use in an assisted living facility? I could hear a faint chuckle and was told they had received many calls lately (remember, this was almost 3 years ago) and that there were no regulations, but to treat it like a Schedule II substance even though

it’s still considered a Schedule I by the federal government.

Okay, so now what do I do? Where do I get this filled? Was she supposed to smoke it? This is a non-smoking community! In order to monitor dosage do I count the number of joints or hits she takes?

In a local weekly newspaper, on the back page are advertisements for dispensaries (none in our area) and delivery services. Nervous but in need of information, I called a delivery service asked what is best for an 84-year-old lady with chronic back pain?

*As a nurse, you never give a medication to a patient without knowing how the medication works in the body and the side effects associated with it.*

They suggested a CBD-rich tincture, which would be easy to administer. The following day a very nice young man arrived at my facility and delivered to my office a dark brown bottle with an eye dropper and on the label it read “CBD Rich tincture. 3/4 of a tsp =1 dose.”

As a nurse, you never give a medication to a patient without knowing how the

- Improved eating ability (discontinued feeding tubes).
- Decreased muscle contraction (spasticity).
- Improved sleep and decreased use of sleeping pills
- Enema treatments that were part of the ward’s routine were almost completely halted for these patients after their constipation-inducing pharmaceuticals were discontinued.

Patients reported more than one benefit from using cannabis.

All 18 who had been prescribed cannabis for pain achieved relief of pain.

Fifteen patients experienced improved appetite.

Six patients slept better after cannabis treatment. (Only one had been given cannabis to treat insomnia.)

Two of the patients were holocaust survivors who suffered post-traumatic stress with nightmares and daytime anxiety. Cannabis prescribed for pain and appetite coincidentally alleviated their PTSD symptoms.

Two patients receiving cannabis to reduce pain and stimulate appetite experienced relief from arthritic inflammation.

**Staff reponse**

When cannabis was first introduced at Hadarim, the nursing staff expressed considerable skepticism about its usefulness. As time passed, however, and more patients received cannabis and responded well, healthcare workers have changed their minds about the treatment. The ability of the staff to provide care improved markedly in cases of spasticity, and loss of appetite.

As the patients’ quality of life improved so did the quality of life for the nursing

*Families of the patients reported that they had better visits*

team. The department was calmer and less noisy as the patients suffered less.

Families of the patients reported that they had better visits —contact with the hospitalized family member improved. Some patients were emotionally and intellectually reconnected with their relatives after a period of separation.

A total of 39 medications were discontinued by the 27 patients followed in my survey: 12 painkillers, 10 anxiolytics, three drugs for Alzheimer’s, three antipsychotics, two drugs for parkinson’s, two for gout, two anticonvulsants, three sedatives, one laxative and one anti-diabetic.

**Environmental impact**

Recently, scientists in a hydrochemistry lab at Tel Aviv University documented severe water contamination caused by pharmaceutical residues from human excretion or thrown-away pills. Decreasing consumption of these compounds will protect our water resources. Increased use of cannabis will help us achieve this goal.

My next research project, to be conducted at Reut Rehabilitation Hospital, will test the effectiveness of cannabis treatment in oro-pharyngeal dysphagic patients and elderly patients with eating (swallowing) problems. I will also evaluate the cognitive effects of cannabis treatment on these patients.

*Zach Klein thanks his Tel Aviv University advisors: Professor Dror Avisar, Hydrochemistry Laboratory; Professor Naama Friedman, School of Education; and Dr. Yehuda Baruch, Faculty of Medicine and Director of the Abarbanel Mental Health Center.*

Clopidogrel	Luvox	Ebixa	Pericocet	Ameryl
Laxadin	Halidol	Clonex	Lyrica	Colchicine
Memorit	Oxycodin	Phenergan	Dopicar	Depalept
Cipralext	Xanax	Seroquel	Vaben	Durajesic
Exelon	Recital	Bondormin	Acamol	Tramadex

*Nurses will appreciate the fact that in our medication cart we have no narcotics to count each shift, no sleeping pills or anti-anxiety meds!*

medication works in the body and the side effects associated with it. I tried calling different facilities asking if anyone was using a tincture in their facility and I couldn’t get anyone to talk to me. At the time I did not know Dr. Deborah Malka, a cannabis specialist with an office in Santa Cruz.

So, there I was holding a dark brown bottle (50cc) in my hand with an eyedropper. No measurements on the dropper. How



KAREN MANKINS, RN

do I know how much to give? I called my pharmacy and asked if they could send me some empty Roxanol containers which are measurable.

The resident and her daughter were getting anxious to try the new medication. At the time the patient was getting two Norco every four hours around the clock. She was constipated and on multiple bowel meds. She was nauseated from the narcotics and was getting anti-emetic meds. She had no appetite, was depressed and anxious and taking anti-anxiety meds. She had no energy and she couldn’t sleep! What kind of quality of life is that?

I’ve learned when giving a new medication to an elderly patient to always give “low and slow.” So instead of giving the ¾ teaspoon, I gave her two milliliters and asked her to remain in her chair. I called a half hour later and asked how she was feeling? She said “Well, I’m hungry!” Then I asked her about her pain. She replied “What pain?”

I couldn’t believe it. This has to be a placebo effect. I went to her room and asked, “What do you mean ‘what pain?’” She said, “Karen, I know the pain is still there but the edge is off so much better than those damn pain pills!”

*continued on page 67*



Sonoma elderly from page 25

Sr. and his son and CEO, John Wotring, Jr. have special compassion for elders with severe dementia. They, too, have been traumatized by unexpected deaths following use of black-box warning drugs.

Among the drugs being used at Primrose to treat Alzheimer’s Disease are acetylcholinesterase inhibitors. Acetylcholine is a neurotransmitter involved in memory and thinking; acetylcholine esterase is the enzyme that breaks it down, which increases the acetylcholine level at the synapse. It also prevents the acetylcholinesterase-induced beta-amyloid “plaque” aggregation and deposition, which are the key pathological markers of Alzheimer’s Disease.

Although promising in theory, synthetic acetylcholine esterase inhibitors don’t seem to work very well —and they’re expensive..

THC also inhibits acetylcholinesterase. In a paper that came out of Scripps Research Institute in 2006, Eubanks, et al concluded: “Compared to currently approved drugs prescribed for the treatment of Alzheimer’s disease, THC is a considerably superior inhibitor of A beta aggregation... cannabinoid molecules may directly impact the progression of this debilitating disease.”

This raises the question of whether or not use of cannabis and high-THC medicine may not only slow or stop the progression of the disease, but may even improve cognition and aspects of the patients’ care.

The role of nurses

The stars of the show are the nurses who do the observing, the advocating, and the administering of cannabis.

Their patients are on black-box-warning drugs, shuffling down the hallways, drooling, chemically sedated. They’re making switches to cannabis products. They’re observing them for how much they need. They’re advocating for patients who don’t have cannabis as an adjunct to their other medicines. And they’re administering it appropriately to get the most advantage.

The nurses are setting up care conferences with the physicians, staff and families to discuss cannabis therapy. As of now the facility is not asking for a written informed consent, although when we get into a more formal study this will be required.

The nursing staff assists families in product options and sources. Thanks to California law, family members can grow cannabis as caregivers for patients. In some cases family members are baking cookies or brownies and bringing them to Primrose. There are also cannabis dispensaries’ staff delivering products for patients. Cannabis-infused products are locked up in the narcotic lock box and taken out according to the doctor’s orders to be given to the patients.

Nurses and doctors collaborate on treat-

ment plans. For example, the nurse says, “Doctor, may I have an order for ‘Give one cannabis brownie or chocolate orally three times a day with a feature to hold if too sleepy?’”

Another order might be, “Give 15 drops of cannabis tincture sublingually every four hours, or increase to one dropperful —30 drops—if agitation persists. Hold order if the patient is too sleepy.”

*If the patient is getting too much cannabis, they’re sleeping. If they’re not getting enough and they’re still agitated, then give some more. The nurse is the one who will know.*

It’s as simple as that. If the patient is getting too much cannabis, they’re sleeping. If they’re not getting enough and they’re still agitated, then give some more. The nurse is the one who will know.

It’s a simple way to write an order and it gives the nurses a lot of latitude. As changes are made in the administration of cannabis, they’ll go back to the doctor and ask for an update in the order to accommodate whatever is needed.

What constitutes an “effective dosage” is a very important question. Some patients are getting a good response with 5 or 10 milligrams of cannabinoids per day. Others are getting as much as 30 milligram doses as much as four times daily. The dose is managed by the nursing staff to meet the needs of their patients.

Oral formulations at this time include THC-rich and CBD-rich cannabis products, typically in tinctures, cookies, candies and brownies. I want to put a plug in for THC. I think the euphoria and the change of mind that people experience with THC —and not with CBD— is very helpful to patients with dementia. It gives them a different view of the world. It does seem to make a difference. Why withhold THC from these patients? Who has a greater need for its mood-altering effects?

The Cohen-Mansfield inventory of agitated behaviors in dementia lists “pacing, aimless wandering, inappropriate dress or disrobing, spitting, cursing, constant unwarranted request for attention or help, repetitive sentence or questions, hitting, kicking, grabbing onto people, pushing, throwing things, strange noises (weird laughter or crying), screaming, biting, scratching, trying to get to a different place, intentional falling, complaining, negativism, eating/drinking inappropriate substances, hurting self or others, handling things inappropriately, hiding things, hoarding things, tearing things or destroying property, performing repetitious mannerisms, making verbal sexual advances, making physical sexual advances, and general restlessness.”

The symptoms that we’re using cannabis for in this population include: agitation, anxiety, psychosis, restlessness (which can be extreme), anorexia, and aggression. Sometimes patients are taken away by the police when they start punching people. They may be introduced to a roommate but an hour later they don’t know who the person is and they’re fearful and they can get quite aggressive. They’re depressed, they have pain, and muscle spasms, and insomnia.

Cannabis can alleviate each of these symptoms —and provide neuroprotection. My view is: smell the flowers before you push up the daisies. Let ‘em have some THC!

Case Report Excerpts

- Patient has exhausted regular medications, now using cannabis has stopped her loud crying and agitation.
- Horrible hallucinations delusions and aggression... using cannabis only and stopped using haldol.
- Alpha male with aggression and agitation got off a drug cocktail with multiple black box drugs... refused all other medicines except cannabis chocolates.
- A very petite woman receiving full care had exhausted her behavioral medications, now she’s thriving on cannabis, it spiked her appetite and there’s a smile on her face.
- A fully immobile agitated woman on antipsychotics to the point of oversedation now on cannabis and is quiet and contented. The antipsychotics have been discontinued.
- A patient with severe aggression and agitation had a big problem with constantly picking at the skin and bleeding. Under the influence of cannabis the skin-picking and aggression have ended.
- Alpha female kicked out of another facility because of pushing and kicking other residents, on cannabis has calmed down and has pleasant affect.
- A hardworking gentleman with insomnia, agitation, and aggression, constantly restless. Cannabis has allowed him to slow down, stop his movement, and sleep.
- A patient who had been taken away from the facility with a 5150 hold for being dangerous to himself and others has now returned. On cannabis his hallucinations and rages have subsided. He’s now transitioning off of his other medications to cannabis only.
- A patient with advanced Parkinson’s disease and aggression. His family made cookies and brought them in. This has dramatically lowered his aggression and improved his sleep.
- A severe opiate-dependent patient obsessively needing to go to the toilet. She

was out of bed every three minutes through the night. (They put a monitor on the bed.) With cannabis she’s up once a night to the toilet and experiencing no breakthrough pain, no need for additional opiates.

- Three patients have been using Marinol at the average expense to the families of \$675/month. It has resulted in mood stabilization and increased appetite. The staff is encouraging these patients to transition onto cannabis, which will likely be more cost effective.
  - Two residents that are Kaiser patients in this facility have been refused cannabis therapy by their admitting Kaiser physicians, despite requests from families and staff. There are influential Kaiser physicians who do not recognize cannabis as medicine; they stay with the addictive and dangerous conventional medications that we are taught to use in medical school and residency programs. A few Kaiser oncologists have accepted cannabis as an adjunct to chemotherapy, but in general Kaiser treats cannabis as a drug of abuse without real value.
- We’ve made a little breakthrough at Primrose: the primary doctor from Kaiser is going to come for a site visit to get a better feeling for how cannabis is working for the other patients.

Conducting a study

Dr. Grob and I want to look at cannabis use with accurately measured medicine. So we are designing a study where we will administer fixed-dosage, lab-verified amounts of cannabinoids. We are trying to get funding so that we can analyze the medications that the patients will receive. We expect to document the diminished use of conventional medicines and behavioral changes in the Cohen-Mansfield agitation inventory that grades 29 agitated behaviors.

Our experience at Primrose just might be the start of a trend. There was a recent report of a family bringing a loved one to another Sonoma County assisted living facility and, upon learning that they wouldn’t support the medicinal use of cannabis, packing up and going across town to Primrose.

One of the nurses who worked closely with Dr. Grob was subsequently hired at a neighboring nursing facility where a condition of her hire was that she will introduce cannabis therapy. Perhaps the owners anticipate increasing demand by the families of Alzheimer’s patients for cannabis-friendly care.

*Jeffrey Hergenrather, MD, has been a cannabis consultant since 1998, with an office in Sebastopol, California. He would like to thank the nurses involved by name, but they have requested anonymity due to licensing concerns and uncertainty about future employment options.*

**WARNING**

**INCREASED MORTALITY IN ELDERLY PATIENTS WITH DEMENTIA-RELATED PSYCHOSIS**

Elderly patients with dementia-related psychosis treated with antipsychotic drugs are at an increased risk of death. Analyses of seventeen placebo-controlled trials (modal duration of 10 weeks), largely in patients taking atypical antipsychotic drugs, revealed a risk of death in drug-treated patients of between 1.6 to 1.7 times the risk of death in placebo-treated patients. Over the course of a typical 10-week controlled trial, the rate of death in drug-treated patients was about 4.5%, compared to a rate of about 2.6% in the placebo group. Although the causes of death were varied, most of the deaths appeared to be either cardiovascular (e.g., heart failure, sudden death) or infectious (e.g., pneumonia) in nature. Observational studies suggest that, similar to atypical antipsychotic drugs, treatment with conventional antipsychotic drugs may increase mortality. The extent to which the findings of increased mortality in observational studies may be attributed to the antipsychotic drug as opposed to some characteristic(s) of the patients is not clear. ZYPREXA (olanzapine) is not approved for the treatment of patients with dementia-related psychosis [see WARNINGS AND PRECAUTIONS and PATIENT INFORMATION].

When using ZYPREXA and fluoxetine in combination, also refer to the Boxed Warning section of the package insert for Symbyax.

“BLACK-BOX WARNING” ON ZYPREXA LABEL acknowledges “Increased mortality in elderly patients with dementia-related psychosis.” Other dangerous drugs commonly prescribed to elderly patients with dementia include Seroquel, Geodon, Abilifym Desyrel (trazadone), Navane, Haldol, Clozaril (clozapine), Risperdal, Celexa, Cymbalta.



FENCES AROUND THE PERIMETER are part of the security system at Primrose to prevent patients from wandering off.



Mankins from page 26

In the days that followed we worked together —working with patients is the key to proper dosing—to arrive at a dose of one milliliter of tincture four times a day. Over the course of about a month she was titrated off of her Norco, her anxiety meds and her sleeping pills She was up walking around without pain. She was able to get off her Norco, Megace, Ambien, Ativan and bowel meds Her quality of life improved with just the tincture. The sad part is when she started requiring more skilled nursing she was sent to our skilled nursing facility where the regulations are different and the director was hesitant to use cannabis. So she was put back on her narcotics with all the associated side effects and she eventually died in pain.

Another one of my residents, a woman had a similar experience. She was diagnosed with ovarian cancer and was receiving pain medication with all the associated side-effects —nausea, vomiting, insomnia, no appetite, I called her MD and he said “if she agrees to try cannabis I’ll write the recommendation.”

She started getting two doses of tincture every four hours and was soon pain free, weaned off her narcotics and three other medications. But when she was transferred to the Skilled Nursing Facility, where can-

nabis was unavailable, her condition deteriorated and she, too, died in pain.

The news about cannabis spread to the residents and it reached one of our Board members who is an MD. This member voiced his concern about our community using cannabis due to the stigma and fear of the DEA (which I could understand).

Fortunately, in this period I was introduced to Deborah Malka, MD, a cannabis specialist with an office in Santa Cruz, and I was able to start referring residents to her to get cannabis recommendations appropriate for their various needs.

As of this writing, 12 of my 20 residents are using cannabis successfully —tinctures, topicals or both. Nurses will appreciate the fact that in our medication cart we have no narcotics to count each shift, no sleeping pills or anti-anxiety meds! Nothing except tinctures to treat these elderly patients. As far as risk management, our falls have decreased significantly!

I have become more educated about the endocannabinoid system and for two years have been an active member of the American Cannabis Nurses Association. I no longer fear losing my license as I did in the beginning. Patients need guidance using cannabis as medicine, and no one is in a better position to provide it than nurses.

The Context of Prohibition



MJ vs Metabolic Syndrome jump

greater caloric consumption with consequent adverse metabolic outcomes, including obesity. However, the results of this study and other reports indicate that such is not the case. Indeed, the opposite appears to be true.

In addition to underscoring potential health benefits of herbal cannabis, these findings highlight the discrepancy between human research that links marijuana use to lower rates of obesity compared to preclinical studies with synthetic isolates in which CB1 antagonism (blocking the munchies receptor) and CB1 inverse agonism (flipping the anti-munchies switch) are shown to prevent obesity.

How is it possible that activating cannabinoid receptors via marijuana consumption is associated with preventing obesity in humans, while blocking or reversing the CB1 receptor with a synthetic, single-molecule compound results in weight-loss in animal studies? What can explain this apparent contradiction?

It may have something to do with the complementary, yet opposing functions of two different sets of cannabinoid receptors.

**CB2 receptor activation**

Australian scientists recently examined the role of the cannabinoid CB2 receptor “in modulating energy homeostasis and obesity-associated metabolic pathologies.” The CB2 receptor is concentrated in the peripheral nervous system, immune cells, and in metabolically active tissue. The Australian researchers found that CB2 receptor activation by JWH-015, a “selective CB2 receptor agonist,” reduces food intake in mice and prevents the build-up of body fat.

The fact that THC and other cannabis components (including the aforementioned THCV) also activate CB2 receptor signaling may explain why marijuana users are less likely to develop metabolic syndrome than marijuana abstainers. Metabolic syndrome is a generalized, low-grade inflammatory condition, and the THC-sensitive

CB2 receptor regulates immune function and inflammation.

CB2 receptor activation —through healthy diet and cannabis-enabled stress reduction— may prove to be a better strategy for preventing and treating metabolic syndrome than the misguided attempt by French pharmaceutical giant Sanofi-Aventis to market Rimonabant, a synthetic CB1 inverse agonist as an appetite suppressant. Promoted as a blockbuster diet drug in 2006, Rimonabant was soon recalled in Europe because of severe adverse side effects, including neurological deficits, depression, and suicide. The anti-munchies pill was never approved for sale in the United States.

Sorry Big Pharma, but when it comes to preventing or mitigating metabolic dysfunction, synthetic isolates are much less effective than whole plant cannabis with its synergistic treasure trove of natural medicinal components that enhance and balance each other’s effects.

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