Douglas, Craig J (CED)

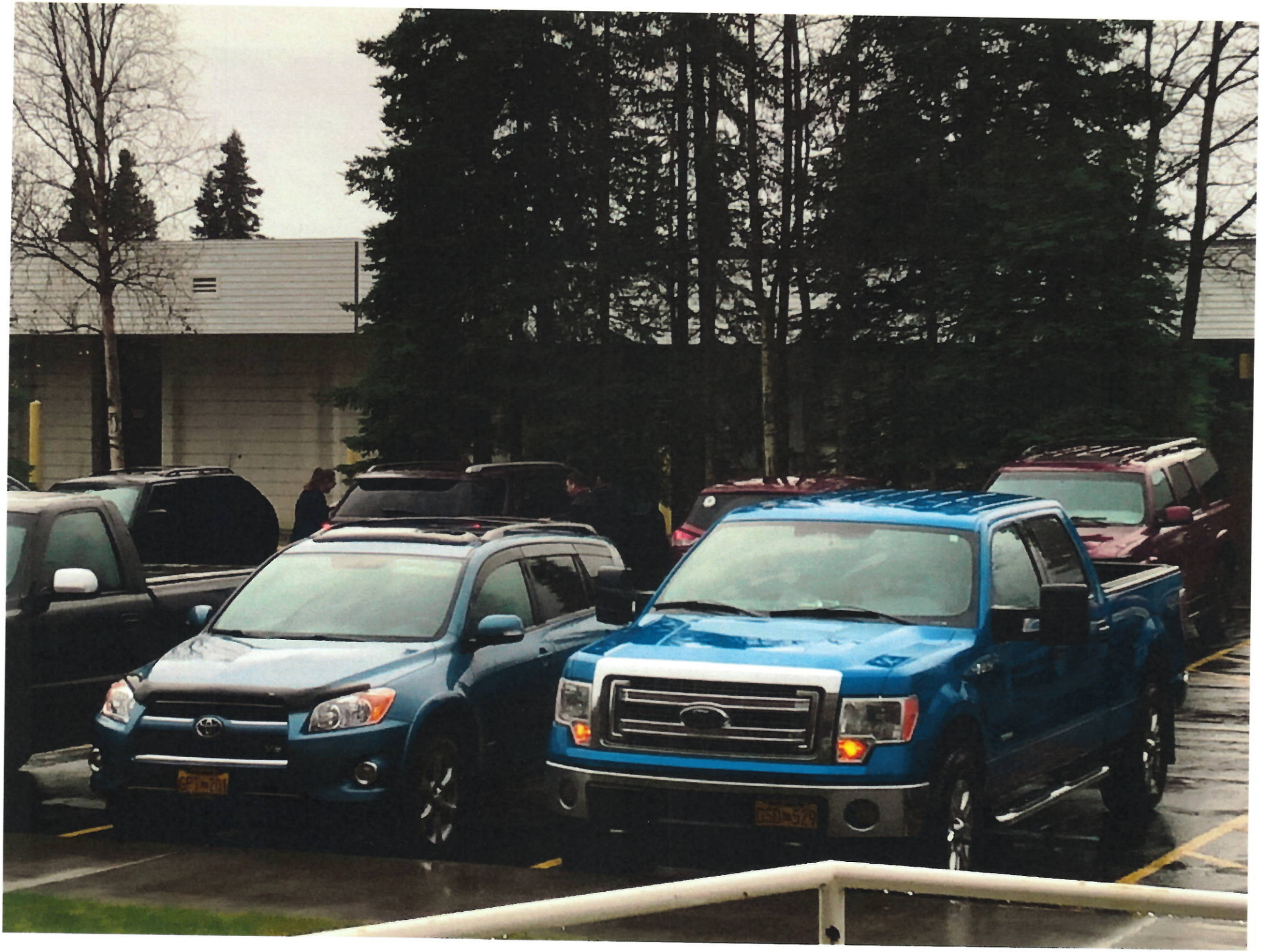
From: AMCO Admin (CED sponsored)
Sent: Wednesday, December 05, 2018 8:54 AM
To: Marijuana, CED ABC (CED sponsored)
Subject: FW: Appearance of impropriety

Came into the Admin and Marijuana Licensing inboxes.

Craig

From: Valorie <vnelson1102@gmail.com>
Date: November 30, 2018 at 4:06:51 PM AKST
To: marijuana.licensing@alaska.gov
Cc: specklaw@ptialaska.net, Connor Nelson <keystone99835@yahoo.com>
Subject: Appearance of impropriety

I attended your board meeting in Kenai in October and witnessed one of the board members getting into an attorneys vehicle several times. I'm attaching two of the photos that I took on 10/16 @5:26 pm and 10/17 at 11:50 am. The board member is Brandon Emmett and the attorney is Jana Weltzin (who appears to represent a lot of marijuana license applicants). I would like to address this at your December meeting if I'm allowed to be heard.
I hope that any of you that are located in the Anchorage and affected areas of this morning's quake are safe.
Thank you. /s/ Valorie Nelson



Douglas, Craig J (CED)

From: Marijuana Licensing (CED sponsored)
Sent: Tuesday, November 27, 2018 9:19 AM
To: frieda.kaleak@north-slope.org
Cc: Marijuana Licensing (CED sponsored); Marijuana, CED ABC (CED sponsored)
Subject: FW: November 26.pdf
Attachments: November 26.pdf

Importance: High

Good morning,

Please provide the license number, name of the business, and exact address of the location for the proposed marijuana establishment you are objecting to if you wish to lodge an objection to the specific application. You also need to copy the applicant in your objection (by email is fine).

Your attached Objection Letter will be treated as a general comment and forwarded to our Marijuana Control Board's email inbox because you did not provide specific information about the marijuana application/establishment you are objecting to and you did not copy the applicant as required under 3 AAC 306.065.

Respectfully,
Jane Sawyer
Occupational Licensing Examiner
Alcohol and Marijuana Control Office
907-269-0350

From: Frieda Kaleak <Frieda.Kaleak@north-slope.org>
Sent: Monday, November 26, 2018 9:11 AM
To: Marijuana Licensing (CED sponsored) <marijuana.licensing@alaska.gov>
Subject: November 26.pdf
Importance: High

Good morning,

Please see attached Objection letter. Thank you!

November 26, 2018

To: Alcohol & Marijuana Control Office

From: Frieda Kaleak - Barrow, AK

Subject: Application for Marijuana License for BARROW, AK for ROBERT KALEAK

I oppose this license request for a strong reason. I wish to not see this store open near my 6 month old son's daycare! It is literally half a mile away from the daycare location. The daycare has state certified teachers, and is considered a school. The name is the Barrow Early Learning Center, which cares for 20+ infants and toddlers.

Having a dispensary will make things worse for our community. Barrow is already known for drugs, alcohol, domestic violence and gun violence. Opening this store would more likely to increase so much abuse and power to those who cannot control themselves around drugs, alcohol domestic and gun violence.

I STRONGLY OPPOSE THIS FOR MYSELF, ALONG WITH OTHER PARENTS WHO CANNOT SPEAK FOR THEMSELVES THAT HAVE CHILDREN ATTENDING THIS DAYCARE.

I urge you to reconsider this application process and hopefully make the right choice in denying Mr. Robert Kaleak or to advise him to look for another commercial lot/location away from School Zones.

I do not want to see threats; whether if it is written or verbal, being made to this owner of this license application or anyone who may or will be involved. This subject is bringing community members to the level of hatred and violence already.

So please, for my 6 month old son Jonathan, who has his whole life ahead of him. I am trying my very best to keep harm's way and negative vibes out of his life and show him the world. It takes a community to raise a child. It also takes a community to decide what they want and don't want in this town.

Quyanaqpak (Thank you)

Respectfully,

Frieda Kaleak

Douglas, Craig J (CED)

From: Douglas, Craig J (CED)
Sent: Monday, November 19, 2018 3:36 PM
To: Marijuana, CED ABC (CED sponsored)
Cc: McConnell, Erika B (CED)
Subject: Letter from Carolyn Brown MD MPH
Attachments: Letter from Carolyn Brown MD MPH.pdf

Hello-

Please see the attached letter from Carolyn Brown MD MPH, regarding Marijuana and Public Health Concerns.

Craig J. Douglas
Administrative Officer
Alcohol & Marijuana Control Office
550 West 7th Avenue, Suite 1600
Anchorage, Alaska 99501
https://www.commerce.alaska.gov/web/amco/

carolyn V Brown MD MPH
1640 Second Street
Douglas Alaska 99824

Obstetrics-Gynecology (FACOG)
Preventive Medicine-Public Health (FACPM)

907-364-2726
907-364-2727 fax

cvbrown1937@yahoo.com

907-321-0784 cellular

13 November 2018

Erika McConnell
Director
Marijuana Control Board
550 W 7th Avenue SE
Ste 1600
Anchorage Alaska 99501

Dear Erika:

I appreciate receiving updates and information from the Marjuana Control Board. I speak frequently with Loren Jones about the work and remain very interested in this issue for women, children, and all citizens of Alaska.

I do recall receiving some information and opportunity for public comment. I apologize that I did not return this in a timely fashion as I was traveling.

There are several recent articles that I believe will be of interest and possible use in the Board's decision making. Of course marijuana is of significant concern to pediatricians as well as obstetricians-gynecologists. If appropriate, I will very much appreciate your sharing this information with the Board. These include:

- Hines L, et al. _Medical Marijuana for Minors May Be Considered Child Abuse. Pediatrics: 142 (4):59. 4 October 2018.
- Bertrand KA, et al. Marijuana Use By Breast feeding Mothers and Cannabinoid Concentrations in Breast Milk. Pediatrics: 142 (3):20. 5 September 2018.
- Ryan SA. A Modern Conundrum for the Pediatrician: The Safety of Breast Milk and the Cannabis-Using Mother. Pediatrics: 142 (3):21. 5 September 2018
- Ryan SA, et al. Marijuana Use During Pregnancy and Breastfeeding: Implications for Neonatal and Childhood Outcomes. Pediatrics 142 (3):117. 5 September 2018.

I strongly encourage the use of professional science along with reasoned logic and ethics in decision making about marijuana. Information becomes available very quickly and we must have "due diligence" in dealing with marijuana or any substance that may affect children and pregnant-breast feeding women. A bit of hind-sight takes us down the thalidomide road of our history.

I so encourage each of you to maintain vigilance and diligence in this important work. I believe there is much more to marijuana that the financial and tax receipt considerations

Thank you for this consideration.

Sincerely,

Carolyn Brown

carolyn V Brown MD MPH

Marijuana Use by Breastfeeding Mothers and Cannabinoid Concentrations in Breast Milk

Kerri A. Bertrand, MPH,[a] Nathan J. Hanan, PharmD,[a,b] Gordon Honerkamp-Smith, MS,[a] Brookie M. Best, PharmD, MAS,[a,b] Christina D. Chambers, PhD, MPH[a,b,c]

abstract

BACKGROUND AND OBJECTIVE: Marijuana is the most commonly used recreational drug among breastfeeding women. With legalization of marijuana in several US states and a 1990 study in which authors documented psychomotor deficits in infants breastfed by mothers using marijuana, there is a need for information on potential exposure to the breastfed infant. Our objective with this study was to quantify cannabinoids in human milk after maternal marijuana use.

METHODS: Between 2014 and 2017, 50 breastfeeding women who reported marijuana use provided 54 breast milk samples to a research repository, Mommy's Milk. Concentrations of Δ-9-tetrahydrocannabinol (Δ9-THC), 11-hydroxy-Δ-9-tetrahydrocannabinol, cannabidiol, and cannabinol were measured by using liquid chromatography mass spectrometry electrospray ionization.

RESULTS: Δ9-THC was detectable in 34 (63%) of the 54 samples up to ~6 days after last reported use; the median concentration of Δ9-THC was 9.47 ng/mL (range: 1.01–323.00). Five samples had detectable levels of 11-hydroxy-Δ-9-tetrahydrocannabinol (range: 1.33–12.80 ng/mL) or cannabidiol (range: 1.32–8.56 ng/mL). The sample with the highest concentration of cannabidiol (8.56 ng/mL) did not have measurable Δ9-THC. Cannabinol was not detected in any samples. The number of hours since last use was a significant predictor of log Δ9-THC concentrations (−0.03; 95% confidence interval [CI] −0.04 to −0.01; $P = .005$). Adjusted for time since last use, the number of daily uses and time from sample collection to analysis were also significant predictors of log Δ9-THC concentrations (0.51; 95% CI 0.03 to 0.99; $P = .039$; 0.08; 95% CI 0.00 to 0.15; $P = .038$, respectively).

CONCLUSIONS: Δ9-THC was measurable in a majority of breast milk samples up to ~6 days after maternal marijuana use.

WHAT'S KNOWN ON THIS SUBJECT: Previous data used to quantify the transfer of Δ-9-tetrahydrocannabinol and other cannabinoids into human breast milk after maternal marijuana use are limited to several case reports.

WHAT THIS STUDY ADDS: In 50 women reporting marijuana use while breastfeeding, Δ-9-tetrahydrocannabinol was measurable in 63% of milk samples, up to 6 days after last use; 11-hydroxy-Δ-9-tetrahydrocannabinol and cannabidiol were measurable in 9% of milk samples, and cannabinol was undetectable in all samples.

To cite: Bertrand KA, Hanan NJ, Honerkamp-Smith G, et al. Marijuana Use by Breastfeeding Mothers and Cannabinoid Concentrations in Breast Milk. *Pediatrics.* 2018;142(3):e20181076

Full article can be found online at www.pediatrics.org/cgi/doi/10.1542/peds.2018-1076

This article has an accompanying video summary.

[a]Department of Pediatrics, [b]Skaggs School of Pharmacy and Pharmaceutical Sciences, and [c]Department of Family Medicine and Public Health, University of California, San Diego, La Jolla, California

Mrs Bertrand designed the data collection instruments, coordinated and supervised data collection, drafted the initial manuscript, and reviewed and revised the manuscript; Dr Chambers conceptualized and designed the study and critically reviewed and revised the manuscript; Drs Best and Hanan conducted the assay development and sample analysis and reviewed and revised the manuscript; Mr Honerkamp-Smith conducted the study analyses and reviewed and revised the manuscript; and all authors approved the final manuscript as submitted and agree to be accountable for all aspects of the work.

DOI: https://doi.org/10.1542/peds.2018-1076

Accepted for publication May 22, 2018

A Modern Conundrum for the Pediatrician: The Safety of Breast Milk and the Cannabis-Using Mother

Sheryl A. Ryan, MD

For the first time in history, a majority of US citizens (61% in 2018) support full legalization of all cannabis-containing products.[1] This support has increased despite accumulating scientific evidence that cannabinoids may have long-term detrimental physical, psychological, and developmental effects beyond their potential medicinal benefits. These negative effects are particularly concerning among those individuals who were exposed prenatally and those adolescents who report early onset of use and heavy regular use, when critical brain systems are undergoing active growth, development, and maturation.

Despite this cautionary evidence, cannabis is now the most commonly reported recreational drug used by pregnant and lactating women. Up to 36% of women report having used marijuana at some point in their pregnancy, and 18% report having used it while breastfeeding.[2] These high rates of reported use raise important issues for those medical providers who provide care to infants and children or who may be asked by parents about the safety of marijuana use during lactation. Until now, the scientific evidence that would be used to help a provider make an informed decision has been essentially nonexistent. Thus, the study reported by Bertrand et al[3] in this current edition of *Pediatrics*, entitled "Marijuana Use by Breastfeeding Mothers and Cannabinoid Concentrations in Breast Milk," is timely and important, because it provides, for the first time, data from a large sample of human milk donors ($N = 50$) who were currently breastfeeding and using cannabis products, both smoked and edible.

Before Bertrand et al's[3] report, the only data available on the levels of cannabinoids in breast milk were 2 case reports of individual lactating women ($N = 3$). The authors of these reports found that Δ-9-tetrahydrocannabinol (THC), cannabidiol, and THC metabolite 11-hydroxy-Δ-9-tetrahydrocannabinol were present in the breast milk of cannabis-using women, the level of THC in breast milk was 8 times higher than the mother's plasma level, and a fecal sample from 1 of these breastfed infants contained higher concentrations of THC metabolites than the mother's breast milk. Authors of these previous reports suggested that the cannabinoids can transfer into breast milk and that the infant can absorb and possibly metabolize the THC.[4,5]

Using sophisticated mass spectroscopy techniques, Bertrand et al[3] identified and quantified the concentration of several cannabinoids found in the milk samples. They found measurable levels of THC in 63%, 11-hydroxy-Δ-9-tetrahydrocannabinol in 9%, and cannabidiol in 9% of their samples of breast milk collected between 2014 and 2017.

Bertrand et al's[3] study is extremely important in documenting the ability of cannabinoids, including cannabidiol,

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Milton S. Hershey Medical Center, Penn State Health Children's Hospital, Hershey, Pennsylvania

DOI: https://doi.org/10.1542/peds.2018-1921

Accepted for publication Jun 19, 2018

Address correspondence to Sheryl A. Ryan, MD, Division of Adolescent Medicine, Department of Pediatrics, Penn State Health Children's Hospital, 12 Briarcrest Square, 500 University Dr, Hershey, PA 17033. E-mail: sryan4@pennstatehealth.psu.edu

PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275).

FINANCIAL DISCLOSURE: The author has indicated she has no financial relationships relevant to this article to disclose.

FUNDING: No external funding.

POTENTIAL CONFLICT OF INTEREST: The author has indicated she has no potential conflicts of interest to disclose.

COMPANION PAPER: A companion to this article can be found online at www.pediatrics.org/cgi/doi/10.1542/peds.2018-1076.

To cite: Ryan SA. A Modern Conundrum for the Pediatrician: The Safety of Breast Milk and the Cannabis-Using Mother. *Pediatrics*. 2018;142(3):e20181921

which is increasingly being used for medicinal purposes, to be transferred from a cannabis-using lactating mother into her breast milk. However, there are still many questions that cannot be answered by the authors of this study and need to be answered. First, we have no frame of reference to be able to determine if the levels found in breast milk are low, without paired plasma samples from the milk donors and their infants, and why one-third of the cannabis-using sample had nondetectable levels of cannabinoids. In addition, although the concentration of the cannabinoids detected in breast milk was reported as low compared with postulated levels that have been found in adults smoking or ingesting cannabis products, we need to know how these metabolites accumulate in the infant, how the infant metabolizes these substances, how quickly they are excreted, whether they accumulate, and thus how long these metabolites remain in the infant.

THC is highly lipophilic and can be expected to accumulate in fat-rich organs such as the brain.

Because of this, cannabinoids may accumulate preferentially in brain tissue when brain growth and development are occurring rapidly and when breastfeeding most often occurs (during the first 2 years of life). Data have revealed that cannabinoids, primarily THC, can disrupt normal axonal growth and development in the developing human brain.[6] Thus, we also need to know what the short- and long-term developmental effects may be for those infants exposed to cannabinoids through breast milk.

Because the benefits of breastfeeding for both early and later duration are so well known, the medical provider faces a true dilemma when a mother reports marijuana use and also wants to begin or continue breastfeeding. Should she be encouraged to continue breastfeeding in the face of that mother's desire to continue use of marijuana? Should she be encouraged to quit use of all cannabis products as long as she plans to continue breastfeeding? Is there a "safe time" in the infant's life when she can resume her marijuana use while still breastfeeding? Both the American Academy of Pediatrics and American College of Obstetricians and Gynecologists currently recommend counseling the mother to abstain from all cannabis products if desiring to breastfeed.[7,8] With their study, Bertrand et al[3] have provided additional and valuable support for those current recommendations. But the picture is incomplete without our understanding of what is happening at the level of those infants exposed to cannabinoid-containing breast milk. Hopefully, the calls for research to answer these important questions will not go unheeded.

ABBREVIATION

THC: Δ-9-tetrahydrocannabinol

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CLINICAL REPORT Guidance for the Clinician in Rendering Pediatric Care

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Marijuana Use During Pregnancy and Breastfeeding: Implications for Neonatal and Childhood Outcomes

Sheryl A. Ryan, MD, FAAP,[a] Seth D. Ammerman, MD, FAAP, FSAHM, DABAM,[b] Mary E. O'Connor, MD, MPH, FAAP,[c,d]
COMMITTEE ON SUBSTANCE USE AND PREVENTION, SECTION ON BREASTFEEDING

abstract

Marijuana is one of the most widely used substances during pregnancy in the United States and globally. Emerging data on the ability of cannabinoids to cross the placenta and affect the development of the fetus raise concerns about both pregnancy outcomes and long-term consequences for the infant or child. Social media is used to tout the use of marijuana for severe nausea associated with pregnancy. Concerns have also been raised about marijuana use by breastfeeding mothers. With this clinical report, we provide data on the current rates of marijuana use among pregnant and lactating women, discuss what is known about the effects of marijuana on fetal development and later neurodevelopmental and behavioral outcomes, and address implications for education and policy.

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[a]Department of Pediatrics, Penn State Health Milton S. Hershey Medical Center, Hershey, Pennsylvania; [b]Division of Adolescent Medicine, Department of Pediatrics, Stanford University and Teen Health Van, Stanford Children's Health, Palo Alto, California; [c]Department of Pediatrics, School of Medicine, University of Colorado, Aurora, Colorado; and [d]Dartmouth-Hitchcock Medical Center, Lebanon, New Hampshire

Dr Ammerman helped draft and revise the manuscript and critically reviewed the manuscript; Dr Ryan took the lead on drafting the manuscript and helped revise and critically reviewed the manuscript; Dr O'Connor helped draft and revise the manuscript and critically reviewed the manuscript with a focus on the breastfeeding portion; and all authors approved the final manuscript as submitted.

Clinical reports from the American Academy of Pediatrics benefit from expertise and resources of liaisons and internal (AAP) and external reviewers. However, clinical reports from the American Academy of Pediatrics may not reflect the views of the liaisons or the organizations or government agencies that they represent.

The guidance in this report does not indicate an exclusive course of treatment or serve as a standard of medical care. Variations, taking into account individual circumstances, may be appropriate.

To cite: Ryan SA, Ammerman SD, O'Connor ME, AAP COMMITTEE ON SUBSTANCE USE AND PREVENTION, AAP SECTION ON BREASTFEEDING. Marijuana Use During Pregnancy and Breastfeeding: Implications for Neonatal and Childhood Outcomes. *Pediatrics*. 2018;142(3):e20181889

PREGNANCY AND MARIJUANA USE

Epidemiology

Data from the National Survey of Drug Use and Health (NSDUH) revealed that 5.4% of pregnant women 15 through 44 years of age reported current use of any illicit* substance, compared with 11.4% of nonpregnant women (data are limited to the aggregation of years 2012 and 2013).[1] The highest rates of recreational drug use during pregnancy were among adolescent and young adult women, with 14.6% of pregnant 15- through 17-year-old women and 8.6% of pregnant 18- through 25-year-old women reporting current recreational drug use, compared with 3.2% of pregnant 26- through 44-year-old women. Among these

* At the time that the 2012 and 2013 NSDUHs were done, there were no states with legalized recreational marijuana, and marijuana use statistics were included in the group of illicit substances that included, for example, cocaine, heroin, and methamphetamine.

recreational substances, marijuana† is the substance most commonly used by pregnant women, and its use is increasing. Widely variable rates are reported among published studies in both the United States and the United Kingdom. Authors of a US multicenter lifestyle study in 2001 reported a prevalence of δ-9-tetrahydrocannabinol (THC), the psychoactive substance in marijuana, in infant meconium samples to be 7.2%.[2] Authors of a 2006 United Kingdom–based pilot study found that 13.25% of a cohort of Scottish newborn infants had meconium samples that had positive results for tetrahydrocannabinol and/or tetrahydrocannabinol-9-carboxylic acid.[3] In studies of urban, young, and socioeconomically disadvantaged pregnant women, reported rates of marijuana use ranged between 15% and 28%.[4–6] Using NSDUH data from 2002 to 2014, Brown et al[7] reported that the prevalence of "past month" marijuana use among pregnant women 18 through 44 years of age increased from 2.37% to 3.84% in 2002, with the highest use rates reported in 18- through 25-year-old women (7.47% in 2014). Several state-specific surveys have also been used to document increasing rates of marijuana use among pregnant women. The Pregnancy Risk Assessment Monitoring System (PRAMS), a surveillance project of the Centers for Disease Control and Prevention and state health departments, collects state-specific, population-based data on maternal attitudes and experiences before, during, and after pregnancy (available at cdc.gov/prams). PRAMS has conducted surveys on a sample of women in Vermont with live births since 2001 and has included questions about marijuana use during pregnancy since 2009.[8] In 2013, 9.4% of women in Vermont reported marijuana use during their pregnancy, with no significant change in rates since 2009. PRAMS data from Hawaii revealed that women who reported experiencing significant nausea during their pregnancy reported higher rates of marijuana use (3.7%) compared with pregnant women without nausea (2.3%).[9] The 2012 NSDUH found that pregnant women reported a decrease in their marijuana use from 9.0% to 4.8% in the first and second trimesters, respectively, to 2.4% by the third trimester. Reported rates of tobacco use during pregnancy decreased from 19.9% to 13.4% and to 12.8% in the first, second, and third trimesters, respectively. Authors of other studies have found that 48% to 60% of marijuana users report continuing use during their entire pregnancy, believing it to be safer than tobacco.[4,10,11] In the Longitudinal Development and Infancy Study from the United Kingdom, Moore et al[11] found that most pregnant women who used cocaine, ecstasy, methylenedioxymethamphetamine, and other stimulants stopped using these substances by the second trimester, but 48% of previous marijuana users continued to use marijuana as well as alcohol (64%) and tobacco (46%) throughout their entire pregnancy. In addition, the Longitudinal Development and Infancy Study revealed that the frequency and amounts of both marijuana and tobacco use were sustained throughout the entire pregnancy, similar to prepregnancy levels, whereas the extent of reported alcohol use was reduced. PRAMS data from Vermont also revealed that for 2013 births, 44.6% of women who reported being marijuana smokers before pregnancy continued to use marijuana during their pregnancy.[8] In contrast to these studies, Forray et al[12] found that, of 101 women who reported using marijuana at the beginning of pregnancy and who received substance abuse counseling, 78% were abstinent at a mean of 151 days later and remained abstinent until delivery.

Mark et al[13] demonstrated in a retrospective cohort study of urban, predominantly African American women that, of patients receiving prenatal care and delivering at their institution, 21.8% initially had positive screen results for marijuana use (by either self-report or urine toxicology), but only 1.9% had positive urine screen results for marijuana at the time of delivery. They attributed their high rate of cessation of marijuana use during pregnancy to be related to opportunities for education about adverse effects of drug use, including tobacco and marijuana, during prenatal visits.[13]

Marijuana use during pregnancy has been found to be associated with higher rates of licit and illicit substance use and certain socioeconomic and demographic characteristics. For example, in the Vermont PRAMS study, researchers found that pregnant women who reported marijuana use were more likely to be younger (<25 years of age), to be from households with lower income, to smoke cigarettes, and to report having experienced a significant emotional stressor (traumatic, financial, or partner related) before or during the pregnancy.[8] Mark et al[13] found that use of marijuana was more common in women who reported being unemployed, without a high school diploma, users of either alcohol or cigarettes, depressed, or a victim of abuse. In the Generation R study in the Netherlands, El Marroun et al[14] found in a sample of more than 7000 pregnant women that 85% of marijuana smokers were also

† For the purposes of this report, the word "marijuana" is used intentionally to denote all substances derived from the cannabis plant, in lieu of the word cannabis, even when specifically designated as such by cited research to avoid confusion; the exception is when the term cannabis is part of a quotation. "Cannabis" is less typically used in most clinical settings and currently refers more to commercial products. Using the term marijuana also is consistent with many previous publications on this topic.

cigarette smokers. Schempf and Strobino[6] found that marijuana use was not independently related to prenatal care. In their population of poor, urban women, lack of adequate prenatal care, defined as 1 or no prenatal visits, was significantly more likely among cocaine and opiate users but not marijuana users.[6] Reasons reported for this correlation with cocaine and opiate use included fear of being reported to police or child protective services and lower perceived benefit of prenatal care. Emphasized in these studies is the importance of considering the potential confounding of additional demographic and behavioral variables when evaluating the independent role of marijuana on pregnancy and fetal and infant outcomes.[15,16]

It is important to note that reported marijuana use rates can vary depending on the method of screening used. Current guidance recommends routine screening of all pregnant women for substance use by way of validated questionnaires or conversations with patients.[5,17] Authors of most studies to date have relied predominantly on self-report, which may have resulted in significant underestimation compared with questionnaires or objective measures using urine screening or meconium samples. However, even these objective measures will provide variable results, depending on the chronicity and intensity of use and the recency of use related to the time that a urine sample is obtained. With the increasing number of states legalizing marijuana use and with marijuana being touted on the Internet as a safe treatment of nausea during pregnancy, current rates of use of marijuana during pregnancy are a concern. Health care providers may see increases in the number of pregnant women using marijuana during at least a portion of their pregnancy.[18]

It is unclear why pregnant women are choosing to use marijuana during their pregnancy, because there are few data available on the benefits of marijuana use during pregnancy. Roberson et al[9] found that women reporting marijuana use during pregnancy were more likely to report experiencing severe nausea and vomiting (3.7%) compared with those not experiencing these severe symptoms (2.7%). In a second study of women using marijuana during their pregnancy, 51% reported using it for relief of nausea and vomiting, and 92% of those women reported its effectiveness; no controls were included in this study.[19] Although the use of marijuana is being touted on social media as an effective and safe treatment of nausea and vomiting of pregnancy, there are currently no indications for its use during pregnancy; the American College of Obstetricians and Gynecologists (ACOG) clearly stated this in its Committee Opinion in 2015.[5] Of note, none of the states with legal medicinal marijuana laws list pregnancy as a contraindication for recommending or dispensing medicinal marijuana.[18]

Pharmacokinetics of Cannabinoids During Pregnancy

Marijuana can affect the normal transport functions and physiologic status of the placenta throughout pregnancy.[20] One study has revealed that short-term exposure to cannabidiol, a nonpsychoactive substance found in marijuana, can enhance the placental barrier permeability to pharmacologic agents and recreational substances, potentially placing the fetus at risk from these agents or drugs.[21] El Marroun et al[22] found that marijuana use during pregnancy, as compared with either no marijuana use or tobacco use, results in increased resistance index and pulsatility index of the uterine artery, with resulting potential effects on uterine blood flow, such as increased placental resistance and reduced placental circulation.

Studies that have been used to assess the ability of metabolites of drugs of abuse, including marijuana, to cross the placenta are not recent and have revealed that recreational and licit substances directly cross the placenta, either through passive diffusion or, less commonly, through active transport or pinocytosis.[23] Among the numerous cannabinoids present in marijuana, the substance most responsible for the psychoactive effects, THC, has been shown to readily cross the placenta.[24] The THC molecule is highly lipophilic and is distributed rapidly to the brain and fat of the fetus after ingestion or inhalation by the pregnant woman. After maternal ingestion, concentrations of THC in fetal blood are approximately one-third to one-tenth of maternal concentrations.[24,25] These concentrations can vary depending on the permeability and biological capacity of the placenta.[26] In addition, when marijuana is smoked, serum carbon monoxide concentrations in the pregnant woman are 5 times higher than those when tobacco is smoked, resulting potentially in impaired maternal respiratory gas exchange and subsequent adverse effect on the fetus.[27] Given these known effects of marijuana on the placenta and placental transport, it is biologically plausible that marijuana use during pregnancy could affect both maternal and fetal outcomes.

Adverse Effects of Marijuana on Pregnancy and on the Neonate, Infant, Child, and Adolescent

Outcomes During the Neonatal Period

Two recent systematic reviews and meta-analyses have been published to determine the independent effect of marijuana use during pregnancy on both maternal and early neonatal outcomes. The first study by Gunn et al[28] was used to review 24 studies to determine the effect of marijuana use on maternal anemia; neonatal growth parameters, such as birth weight, head circumference, and length; admission to the NICU;

gestational age; and preterm birth. They found that women who used any marijuana during pregnancy had a higher likelihood of developing anemia, and infants exposed prenatally to marijuana had a decrease in birth weight (mean difference in weight of 110 g for exposed versus unexposed neonates) and a higher likelihood of needing admission to an NICU. They found no relationship between marijuana use and any of their other selected outcomes. The authors pointed out, however, that a major limitation of their study was their inability to determine the independent effect of marijuana, given that most of the studies assessed did not exclude individuals with polysubstance use, including tobacco or alcohol, or measure use of those substances. The authors also cited additional limitations, such as how the use of marijuana was identified mainly by self-report, and few of the outcomes assessed were standardized across studies.

Conner et al[29] has attempted to address the limitations cited in the review by Gunn et al[28] by adjusting the effects of marijuana exposure during pregnancy for tobacco use and other confounders, such as other drug use, wherever possible, in a second meta-analysis. Their study included the systematic review of 31 studies (from 1982 to 2015) in which they specifically evaluated the effect of maternal marijuana use on neonatal outcomes that included low birth weight (<2500 g), preterm delivery (<37 weeks' gestation), birth weight, gestational age at delivery, admission to the NICU, small-for-gestational-age status, stillbirth, spontaneous abortion, low Apgar scores, placental abruption, and perinatal death.[29] A major strength of this review was the inclusion of cohort studies used to measure use of other substances, such as tobacco and other recreational drugs, and socioeconomic and demographic factors to control for these confounders and determine the independent role of marijuana use. Exposure to marijuana was defined as any amount, frequency, or duration during the pregnancy, assessed through self-report or objective means when available; comparison groups were women who did not use any marijuana during their pregnancy. When analyses controlled for concomitant tobacco use, women who smoked marijuana only were not at risk for preterm delivery, but those who smoked both tobacco and marijuana did experience higher rates of preterm delivery compared with those not using either marijuana or tobacco. They also found no independent relationship between marijuana use and small-for-gestational-age status, placental abruption, need for NICU admission, or spontaneous abortion. They did find that women using marijuana during pregnancy were more likely to deliver an infant with lower mean birth weight or lower Apgar scores and to experience stillbirth, but these results were unadjusted, because the authors were limited in their analytic ability to provide adjusted relative risk rates for these outcomes. They concluded that maternal marijuana use during pregnancy was not an independent risk factor for several outcomes, given the confounding effect with factors such as tobacco use. They stated that the "increasing frequency of marijuana use during pregnancy may play a role in risk for adverse neonatal outcomes" but cautioned that "women who use marijuana more frequently are also more likely to use higher amounts of tobacco and other drugs," which could not be accounted for completely in their review.

Both systematic reviews included longitudinal cohort studies used to provide data that are mixed in terms of adverse outcomes in infants exposed to prenatal marijuana during pregnancy. These include the Ottawa Prenatal Prospective Study (OPPS), a longitudinal cohort study of low-risk, white, predominantly middle-class families[30,31]; the Maternal Health Practices and Child Development Study (MHPCD), a cohort study of high-risk, low socioeconomic–status women, representing both white and African American women[32]; the Generation R study, a population-based study from the Netherlands[14]; and the United Kingdom–based Avon Longitudinal Study of Pregnancy and Childhood.[33] Researchers of the OPPS and the MHPCD found no independent relationship between prenatal marijuana use and preterm births, miscarriages, pregnancy complications, or Apgar scores or physical anomalies in the neonates, but researchers of the OPPS did find a decrease in the length of gestation by 0.8 weeks associated with heavy marijuana use.[34,35] Researchers of the MPHCD study found that weight at birth was increased for neonates prenatally exposed to marijuana in the third trimester of pregnancy.[35] In the Generation R study, fetal growth was measured by using ultrasonography, and the researchers found an independent effect of marijuana use, over and above the effect observed with concomitant tobacco use, on decreased fetal growth that was observed beginning in the second trimester and resulted in lower birth weight, specifically when marijuana use was begun early in pregnancy and continued throughout the entire pregnancy.[14] The Generation R study was also used to assess the role of paternal marijuana use, and no independent association with fetal growth was found. In the Avon Longitudinal Study, Fergusson et al[33] found an association between prenatal marijuana use and smaller birth lengths, smaller head circumferences, and lower birth weights among those reporting marijuana use in pregnancy, compared with women in the control group who did not report use.

Authors of another recent large, population-based cohort study found that self-reported marijuana use, without concomitant use of nicotine and/or tobacco, was not associated with pregnancy complications, preterm birth, or changes in neonatal outcomes such as Apgar scores and growth parameters.[36] However, concomitant use of both marijuana and tobacco, compared with tobacco use alone, resulted in an increased risk of multiple adverse perinatal outcomes, higher rates of maternal asthma and preeclampsia, preterm births, and infants with decreased (<25th percentile) head circumferences and decreased (<25th percentile) birth weights. Less than 1% of the total sample of 12 069 women reported use of marijuana, which raises concerns about the representativeness of the sample or validity of self-reported use of substances.

A small number of studies have been used to assess the role of marijuana in outcomes not addressed in the 2 systematic reviews above, such as outcomes in preterm infants, neonatal behavioral outcomes, and fetal anomalies. Dotters-Katz et al[37] published a secondary data analysis on a group of preterm infants born before 35 weeks' gestation comparing the neonatal outcomes of those with prenatal marijuana exposure by maternal report or drug screening (n = 138) versus infants with no marijuana exposure (n = 1732). They found that prenatal marijuana exposure had no detrimental effect on death before hospital discharge, grade 3 or 4 intraventricular hemorrhage, periventricular leukomalacia, necrotizing enterocolitis, bronchopulmonary dysplasia, cerebral palsy, and/or a Bayley Scales of Infant Development–II <70 at 2 years of age.[37] van Gelder et al[38] found a higher rate of anencephaly in fetuses of women who smoked marijuana immediately before and during the first trimester of pregnancy, although the authors did not control for whether these women took supplemental folic acid during early pregnancy. Immediate newborn behaviors that have been observed in those infants who were exposed to marijuana in utero include altered arousal patterns, regulation, and excitability, as measured by the NICU Network Neurobehavioral Scale.[39] Increased tremors and prolonged and exaggerated startle reflexes, as measured by the Neonatal Behavioral Assessment Scale, were observed in the first week and persisted at 9 and 30 days of life.[40] Poor habituation and responses to visual but not auditory stimuli,[41] abnormal high-pitched cries,[42] and abnormal sleep patterns with decreased quiet sleep and increased sleep motility[43] have also been noted in the first week of life. A study by Dreher et al[44] of Jamaican infants exposed to marijuana prenatally did not reveal any abnormalities. Although researchers have suggested that these behaviors share some similarities with symptoms observed in the neonatal abstinence syndrome as well as with opioid withdrawal, there are no data being used now to support a clinical withdrawal syndrome with marijuana exposure.

In summary, the evidence for independent, adverse effects of marijuana on human neonatal outcomes and prenatal development is limited, and inconsistency in findings may be the result of the potential confounding caused by the high correlation between marijuana use and use of other substances such as cigarettes and alcohol, as well as sociodemographic risk factors. However, the evidence from the available research studies indicate reason for concern, particularly in fetal growth and early neonatal behaviors.

Later Effects During Childhood, Adolescence, and Early Adulthood

Two longitudinal studies (the OPPS and the MHPCD, which have been described in the previous section) have been used to observe cohorts of prenatally exposed individuals from infancy through adolescence and early adulthood, and these provide most of the limited available evidence on the long-term adverse neurodevelopmental effects resulting from prenatal exposure to marijuana.[30,32] Authors of both studies have assessed long-term outcomes in the areas of executive function, cognition, academic achievement, and behavior.

Researchers of OPPS have observed its cohort since 1978 (original total of 84 pregnant women who use marijuana) and have demonstrated that, independent of tobacco and other drugs, marijuana exposure has significant and pervasive effects that are noticeable in children beginning at 4 years of age and continuing into young adulthood. Initial observable effects at 4 years of age included lower scores in verbal reasoning and memory tasks.[45] At 6 years of age, children exposed to marijuana, compared with nonexposed children in the control group, showed deficits in global measures of language comprehension, memory, visual and/or perceptual function, and reading tasks that require sustained attention, with a dose response observed, in that those exposed to higher amounts of marijuana prenatally demonstrated higher dysfunction on impulsive and hyperactive scales.[46–48] At 9 through 12 years of age, marijuana exposure was not independently associated with global intelligence or verbal subscales on intelligence testing but was associated with deficits in executive function tasks, such as impulse control and visual problem-solving.[49–52] At 13 through 16 years of age, problems were seen in attention, problem-solving, visual integration, and analytic skills requiring sustained attention.[51,53–55] A functional MRI study of this cohort at ages 18 through 22 years revealed

changes in neural activity with working memory tasks that were not observed in unexposed matched children in the control group.[56] Fried et al have postulated that the behavioral problems and decreased performance on global measures observed throughout childhood and into early adulthood reflect deficits in executive functioning, not overall intelligence.[31,54,57,58]

Researchers of the MHPCD have observed a cohort of exposed infants since 1982 to determine the independent effects of marijuana on cognition, behavior, temperament, mental health disorders, and substance use from infancy through adolescence and early adulthood. At 9 months of age, impaired mental development was seen.[59] At 3, 4, and 6 years of age, deficits in executive function tasks similar to those observed in the OPPS, with poorer memory and verbal measures were found[60,61]; at 6 years of age, impaired sustained attention on vigilance tasks and verbal reasoning and increased impulsivity and hyperactivity was observed with those exposed during the first trimester whose mothers smoked at least 1 joint per day.[61] Adverse consequences in later childhood included impaired executive functioning and visual problem-solving at 9 through 12 years of age and increased hyperactivity, impulsivity, and inattention at 10 years of age for those whose mothers had smoked marijuana during both the first and third trimesters.[62] Unlike the OPPS, whose authors did not find deficits in intellectual abilities and on measurements of standardized academic tests at ages 6 through 9 or 13 through 16 years, authors of the MHPCD did find lower reading and spelling scores in 10-year-old children whose mothers reported smoking at least 1 joint per day during the first trimester of pregnancy and deficits in reading comprehension and underachievement, as measured by the Wide Range Achievement Test–Revised, with mothers who reported smoking marijuana during the second trimester.[62] Lower global achievement, reading, spelling, and math scores were also seen at 14 years of age.[63] Measures of problem behaviors and mental health symptoms were also reported in both cohort studies. The authors of the OPPS found higher rates of reported problem behaviors at 6 through 9 years of age[64] and higher rates of depressive symptoms at 16 through 21 years of age.[65] Authors of the MHPCD also found higher rates of depressive symptoms and externalizing behaviors via parent and teacher report in the exposed cohort at 10 years of age and an increased risk of psychosis in young adults.[66,67] Higher rates of substance use were also reported by these 2 cohort studies. Authors of the OPPS found earlier onset and greater use of both marijuana and tobacco in the exposed cohorts, observed at ages 16 through 21 years,[65] and authors of the MHPCD found higher rates of marijuana and tobacco use across the ages of 14 through 21 years, even after controlling for home environment and parental substance use.[66,68] Sonon et al[69] have also demonstrated higher rates of marijuana use in young adulthood after prenatal exposure to marijuana.

In summary, it is essential to note that the studies discussed above have limitations that may threaten the validity of the findings. For example, the studies in which authors look at proximal results, such as fetal or early neonatal outcomes, rely in most part on self-report of marijuana use, and there is little standardization across studies in the amount of marijuana used and frequency of use. Many of these studies included pregnant women who used other substances in addition to marijuana, such as tobacco, alcohol, or other drugs, and analytic methods were used to control for the confounding effects of these other substances. For more distal outcomes, such as later childhood and adolescent cognition and behavior, studies were limited in the environmental and sociodemographic variables that the authors could control, which could be expected to influence development across childhood and adolescence.[70,71] Despite these limitations and the relative paucity of research in this area, the findings regarding growth variables[72] and neurodevelopmental and behavioral outcomes can be used to suggest that marijuana use during pregnancy may not be harmless. In addition, the existing cohort studies were conducted when the available marijuana had a much lower potency than what is available today, which raises concern that the adverse consequences of prenatal exposure in currently pregnant women may be much greater than what has been reported to date.[18] (See the "Other Considerations" section for discussion on potency.) Rigorous research is needed to determine the independent effects of marijuana, as well as tobacco and other drugs, on neonatal and later childhood and adult outcomes.

Mechanisms Used to Explain Underlying Effects on the Developing Fetus

Cannabinoids mediate their effects through the cannabinoid receptors, type 1 and 2. The endocannabinoid system (ECS) comprises these receptors, along with the neurochemical cannabinoids anandamide and 2-arachidonoylglycerol. This has been studied in both animal as well as human models, specifically for its effect on the immune system and the central nervous system.[23] Although the consequences of prenatal marijuana exposure in pregnant women, both behavioral and developmental, have been documented in epidemiological studies, the molecular mechanisms that are postulated to be associated with these effects of prenatal

drug exposure are only now being elucidated. The ECS is detectable from the early stages of embryonic development (as early as 5 weeks' gestation) and has been found to play an essential role in the early stages of neuronal development and cell survival.[73] Researchers of new data elucidate how this system is involved in the control of neuronal developmental processes such as cell proliferation, migration, and differentiation; thus, it is not surprising that cannabinoid exposure during early developmental stages can result in the long-term neurobehavioral consequences described previously.

Although authors of early studies relied on animal models, authors of recent studies conducted on electively aborted fetuses have provided specific human data, which have been used to support findings observed with animal models. Tortoriello et al[20] have used sophisticated quantitative and qualitative molecular analyses and pharmacologic methods to study human fetuses electively aborted during the second trimester, in both pregnant women who smoked marijuana and pregnant women in a control group who did not use marijuana.[19] They found that in fetuses exposed prenatally to marijuana, levels of molecular substances essential for neuronal cell axonal elongation (SCG10) are significantly reduced, which affects the disassembly of microtubules essential for axonal elongation and the "pathfinding" essential for the development of normal neuronal circuitry during early brain development. THC acts as a partial agonist and binds to the cannabinoid receptors (CB1) during fetal development by reducing endogenous endocannabinoid synthesis (especially 2-arachidonoylglycerol) and subsequent CB1 expression. This results in a functional "hijacking" or supraphysiological modulation of the normal ECS during early fetal brain development. The result is a disruption of the precisely orchestrated signaling and sequencing functions of the ECS, affected by the CB1 receptors, and mediated through the excessive degradation of the intracellular substances such as SCG10 and JNK1.[74] Researchers have also found that unlike the adult brain, in which CB1 receptors are widely distributed throughout most areas of the brain, in the fetus, CB1 receptors are found primarily in the mesocorticolimbic structures such as the amygdaloid complex, the hippocampus, and the ventral striatum, all areas that are important for emotional regulation, cognition, and memory.[75] Researchers have also found that male fetuses may have a greater vulnerability to early developmental effects of prenatal marijuana exposure.[65,76] It is still unclear to what extent this disruption or alteration of developmental synaptic organization is responsible for early neonatal birth effects, longer-term neurodevelopmental effects, or increased vulnerability of later teenagers and adults for addiction or psychiatric illness. With the limited data, it is suggested that the neuronal systems involved in early development need to be studied further for us to understand more fully the molecular mechanism underlying the effects of maternal marijuana on the human fetal brain and specifically for those systems involved in neurocognition, impulsivity, and addiction vulnerability.[76]

Epigenetic mechanisms are also being proposed as one of the explanations for the consequences of prenatal marijuana exposure on fetal neurodevelopment and to explain why adolescents and adults who have been exposed to marijuana prenatally demonstrate an increased vulnerability to later addiction and psychiatric disorders.[77] Epigenetics refers to the mechanism by which gene expression is altered without changes to the genetic code that occur after the genetic makeup of the individual is determined, either prenatally or postnatally. These genetic alterations include microRNAs, DNA methylation, and posttranslational modifications of nucleosomal histones.[77] They are stable alterations that occur during critical developmental periods and result in enduring phenotypical abnormalities.[77] For example, researchers have found that marijuana exposure in early fetal life decreases the expression of genes (through histone lysine methylation) for dopamine receptors (DRD2) in those areas of the brain important for reward recognition (ventral striatum, nucleus accumbens), which may explain higher rates of drug addiction in adults exposed prenatally to marijuana.[78] THC also causes substantial changes in gene expression levels of several other significant systems in the brain that are linked to the ECS, such as the opioid, glutamate, and γ-aminobutyric acid systems, which may persist well into adulthood.[79]

Linkages of the ECS to Other Neurotransmitter Systems

The ECS has been found to have a strong interaction with the opioid systems, through the μ, δ, and κ opioid receptors.[80] Jutras-Aswad et al[79] have found that early marijuana exposure influenced the expression and activity of opioid receptors that have been found to be important in reward and subsequent addictive behaviors. The ECS has also been found to be associated with the serotonergic, adrenergic, glutamate, and γ-aminobutyric acid systems.[78]

Issues for the Clinician

The American Academy of Pediatrics (AAP), the ACOG, and the American Society of Addiction Medicine recommend that all women considering pregnancy, pregnant women throughout their

pregnancy, and those attending predelivery pediatric visits be screened routinely for alcohol and other drug use, including marijuana, by using a validated screening questionnaire.[17,81] Screening and brief intervention techniques are recommended to counsel abstinence for individuals using substances and to refer for treatment those individuals meeting criteria for any substance use disorder.[81] Despite these recommendations, in 1 study, Holland et al[82] found that of the 19% of women reporting current marijuana use (53%) or past marijuana use at their initial prenatal visit, only 52% received any kind of counseling. In addition, the counseling that was provided was focused mainly on legal and child protective consequences of detection at delivery, rather than specific medical or health effects of marijuana use. In July 2015, the ACOG published a position statement that was specifically used to advise against the "prescribing or suggesting the use of marijuana for medicinal purposes during preconception, pregnancy and lactation."[5] Most states that have legalized medicinal marijuana have not specifically limited its dispensing to pregnant women. Oregon is the only state that has legislated specific point-of-sale warnings to dispensaries for women who are pregnant or breastfeeding.[83] It is beyond the scope of this report to discuss specific validated questionnaires that are available or various means for objective screening.

Health care providers are mandated to report to child protective services any cases of suspected child abuse or neglect. The 2010 Child Abuse and Prevention and Treatment Act requires all states to have policies and procedures for reporting newborns and other children who are exposed to illicit substances under the definition of child abuse and/or neglect. Because marijuana is still an illicit substance under federal law, this law applies to marijuana exposure in all states regardless of the legal status of marijuana use by adults in each state. Individual states may have other requirements for the reporting of newborn infants exposed to drugs and other exposures to children.[84]

Given these legal requirements, it is advisable for all health care providers who see pregnant women to be aware of the specific reporting requirements of their state and the potential adverse legal and social consequences of identifying substance use in their patients. When a legal or medical obligation exists for a health care provider to test a patient, he or she should counsel patients about these potential consequences before ordering drug tests and make a reasonable effort to obtain informed consent.[5] Of note, in states with requirements for the reporting of newborn infants exposed to drugs, these supersede federal law on confidential protection of patient records when receiving addiction treatment (42 Code of Federal Regulations Part 2).[81]

BREASTFEEDING AND MARIJUANA USE

Breastfeeding is recognized as the ideal feeding method for infants because of the numerous short-term and long-term benefits of breastfeeding for the mother and the infant. These benefits include but are not limited to decreased infections, such as gastroenteritis, ear infections, and severe respiratory diseases; decreased obesity and diabetes mellitus; decreased rate of sudden infant death syndrome; improved intellectual development; decreased postpartum blood loss; increased child spacing; and decreased risk of type 2 diabetes mellitus for the mother.[85]

When pregnant mothers take medications prescribed or recreationally, the benefits of breastfeeding must be weighed against the effects of the drug on the infant to make a decision that is in the infant's and mother's best interests. Many medications that mothers use while breastfeeding are also taken during pregnancy. It can be difficult to determine whether effects of the drug on the infant are attributable to exposure during pregnancy or from breastfeeding. Additionally, a mother's ability to care for her infant may be impaired because of her use of marijuana. Infants can also be exposed to marijuana through inhalation of marijuana smoked in the presence of the infant.[86,87]

Epidemiology

There are few data about the frequency of use of marijuana by women while breastfeeding. A report from Colorado, where marijuana is legal for some, surveyed women attending the Special Supplemental Nutrition Program for Women, Infants, and Children program in the state's largest local health department. It revealed that 7.4% of mothers younger than 30 years of age and 4% of mothers older than 30 years of age were current marijuana users. Of all marijuana users (past, ever, current), 35.8% said that they had used at some point during pregnancy, 41% had used since the infant was born, and 18% had used while breastfeeding.[88]

Pharmacokinetics of Marijuana in Human Milk

The excretion of medications into human milk depends on chemical factors about the drug, including ionization, the molecular weight, the solubility in lipids and water, and the pH of the drug. The major psychoactive cannabinoid of marijuana, THC, is 99% protein bound, is lipid soluble, and has a molecular weight of 314.[89] The low molecular weight and high

lipid solubility combine to cause marijuana transfer into human milk. It also causes storage of THC in lipid-filled tissues such as the brain. Little is known about the other cannabinoids in marijuana and their transfer into human milk. There are few data about the transfer of THC into human milk. With Table 1, we list the results from the only 2 primary references about concentrations of THC in human milk. These limited data by Perez-Reyes and Wall[90] and Marchei et al[91] reveal that THC transfers into human milk. There is no information about how the amount transferred is related to the concentration of THC in the marijuana, the frequency of use, or the concentration in maternal plasma.

TABLE 1 Primary Sources for the Concentrations of THC Transmission Into Human Milk

Mother	Maternal Marijuana Dose	Amount of THC in Maternal Plasma	Amount of THC in Human Milk
A[91]	Smoked in pipe 1 time per day	—	105 ng/mL
B[91]	Smoked in pipe 7 times per day	7.2 ng/mL	60.3 ng/mL
C[90]	No information	—	86 ng/mL

—, not applicable.

The Effect of Marijuana on Breastfed Infants

There are 2 small studies by Tennes et al[92] and Astley and Little[93] from the 1980s in which the authors attempt to evaluate the effect of maternal marijuana use while breastfeeding on the infant. Both studies included mothers who also used alcohol, other drugs, and tobacco. Tennes et al[92] studied 258 mothers using marijuana and compared them to mothers who did not use marijuana. They examined the infants at 24 to 72 hours of age and a subgroup at 1 year of age. They found the following results: (1) marijuana users were more likely to use illicit drugs and alcohol with a significant linear dose-response relationship between the use of marijuana and alcohol ($R = 0.45$; $P < .01$); (2) infants exposed to marijuana were slightly shorter; (3) most mothers decreased use of marijuana during pregnancy; and (4) no differences were noted in the 1-year growth and scores on the Bayley Scales of Infant Development; however, only 27 of the infants tested at 1 year were exposed to marijuana while being breastfed. These results are limited by the small number of infants exposed to marijuana through breastfeeding, self-selection of mothers who participated in the 1-year follow-up, and lack of control for use of other substances, particularly alcohol.[92]

Astley and Little[93] studied diet, alcohol, and tobacco use during lactation in a group of middle-class mothers. Developmental evaluation at 1 year was completed on 68 infants whose mothers used marijuana while breastfeeding who were matched with mothers with similar alcohol and tobacco use who did not use marijuana while breastfeeding. Of the breastfeeding mothers, 79% reported marijuana use while pregnant, compared with 15% of mothers of infants who were fed formula. In multivariate regression analysis, the infant's exposure to marijuana during breastfeeding in the first month was associated with 14 ± 5 points decrease in motor scores after controlling for tobacco, alcohol, and cocaine use during pregnancy and lactation. There was no effect of marijuana use in the third month of life while breastfeeding. Marijuana use in the first trimester of pregnancy confounded these results, and it was not clear whether exposure prenatally or during breastfeeding had more association. The studies by Tennes et al[92] and Astley and Little[93] had small sample sizes, were completed more than 30 years ago, were associated with use of marijuana during the mother's pregnancy, and had no long-term follow-up. These limitations make it difficult to separate independent effects of marijuana use during breastfeeding from prenatal exposure.

Another area of concern is the use of expressed maternal milk for feeding preterm infants when the mother has reported marijuana use or receives positive test results for marijuana. Expressed maternal milk has been shown to significantly improve outcomes in preterm infants by decreasing the rate of necrotizing enterocolitis (both surgical and nonsurgical), contributing to earlier attainment of full enteral feeds, decreasing the rate of sepsis, and improving neurodevelopmental outcomes, especially for the preterm infants with a birth weight of less than 1500 g.[85]

Published Recommendations From Other Organizations

The 2012 AAP policy statement, "Breastfeeding and the Use of Human Milk," included the following guidance: "maternal substance abuse is not a categorical contraindication to breastfeeding." "Street drugs such as PCP (phencyclidine), cocaine, and cannabis can be detected in human milk, and their use by breastfeeding mothers is of concern, particularly regarding the infant's long-term neurobehavioral development and thus are contraindicated."[85] Although this has been interpreted by some professional organizations to indicate that in the parent using marijuana, the choice to breastfeed is "contraindicated," this was not the intent of that statement. It is suggested instead that the mother be encouraged to breastfeed while, at the same time,

it is strongly encouraged that she abstain completely from using marijuana as well as other drugs, alcohol, and tobacco. This position has been supported by several other professional organizations and resources. For example, LactMed (a free searchable database from the National Library of Medicine) recommends that mothers be encouraged to abstain from or reduce their marijuana use while breastfeeding and to minimize infant exposure to marijuana smoke. The LactMed peer review panel, which reviews published data to ensure scientific validity and currency, recommends continuing breastfeeding.[86] This is similar to the recommendations of the ACOG, which state, "There are insufficient data to evaluate the effects of marijuana use on infants during lactation and breastfeeding, and in the absence of such data, marijuana use is discouraged."[5] The Academy of Breastfeeding Medicine states "A recommendation of abstaining from any marijuana use is warranted. At this time, although the data are not strong enough to recommend not breastfeeding with any marijuana use, we urge caution."[94] After Colorado legalized the use of marijuana by adults ≥21 years old, the Colorado Department of Public Health and Environment developed educational material about marijuana use during pregnancy and while breastfeeding. These materials include patient education handouts that may be helpful to pediatricians and families and are available at the following link: www.colorado.gov/pacific/sites/default/files/MJ_RMEP_Pregnancy-Breastfeeding-Clinical-Guidelines.pdf. Other states that have legalized marijuana may have similar educational information for health care providers and families.

OTHER CONSIDERATIONS

The potency of marijuana now routinely available is much higher than what was available a decade ago. The potency of THC in samples studied in 1983 averaged 3.2% and the average in 2008 was 13.2%; the authors of that same study identified isolated samples with THC contents as high as 27.3% and 37.2%.[95] These higher potencies as well as new practices of marijuana use, such as dabbing or vaping, can significantly increase the concentration of THC being consumed. Studies have revealed that the development of marijuana strains with higher THC concentrations has reduced the concentration of cannabidiol, possibly decreasing the medicinal benefits for a select number of conditions. There are many other substances contained in the marijuana plant in addition to THC and cannabidiol about which little is known. Additionally, marijuana is often grown with the use of pesticides, herbicides, rodenticides, and fertilizers, many of which are toxic.[96,97] Exposure to marijuana may also expose the fetus and infant to these toxins.

CONCLUSIONS AND RECOMMENDATIONS

Pediatricians are in a unique position to counsel women of childbearing age about the potential negative consequences of marijuana use during pregnancy and breastfeeding. Discussing what is known about adverse consequences of marijuana use during pregnancy and breastfeeding at prenatal visits with either the pediatrician or the obstetric provider is an important component of promoting the best health outcomes for both the pregnant woman and the infant. Legalization of marijuana may give the false impression that marijuana is safe. Given ethical concerns, there are no randomized controlled trials on the effect of marijuana use by pregnant and lactating women, and the available longitudinal studies must be viewed with caution given the potential confounding of the effect of marijuana during pregnancy by other licit and illicit substances and sociodemographic and environmental risks factors. However, highlighted in the available epidemiological and animal data are concerns regarding both short-term growth and long-term neurodevelopmental and behavioral consequences of prenatal exposure to marijuana. Our current understanding of the ECS and its role in the development of neural circuitry early in fetal life also provides "theoretical justification" for the potential of marijuana substances, particularly THC, to affect neurodevelopment.[18]

Breastfeeding has numerous valuable health benefits for the mother and the infant, particularly the preterm infant. Limited data reveal that THC does transfer into human milk, and there is no evidence for the safety or harm of marijuana use during lactation. Therefore, women also need to be counseled about what is known about the adverse effects of THC on brain development during early infancy, when brain growth and development are rapid.

The importance of the published findings and the emerging research regarding the potential negative effects of marijuana on brain development are a cause for concern despite the limited research and are the basis for the following recommendations:

1. Women who are considering becoming pregnant or who are of reproductive age need to be informed about the lack of definitive research and counseled about the current concerns regarding potential adverse effects of THC use on the woman and on fetal, infant, and child development. Marijuana can be included as part of a discussion about the use of tobacco, alcohol, and other

drugs and medications during pregnancy.

2. As part of routine anticipatory guidance and in addition to contraception counseling, it is important to advise all adolescents and young women that if they become pregnant, marijuana should not be used during pregnancy.
3. Pregnant women who are using marijuana or other cannabinoid-containing products to treat a medical condition or to treat nausea and vomiting during pregnancy should be counseled about the lack of safety data and the possible adverse effects of THC in these products on the developing fetus and referred to their health care provider for alternative treatments that have better pregnancy-specific safety data.
4. Women of reproductive age who are pregnant or planning to become pregnant and are identified through universal screening as using marijuana should be counseled and, as clinically indicated, receive brief intervention and be referred to treatment.
5. Although marijuana is legal in some states, pregnant women who use marijuana can be subject to child welfare investigations if they have a positive marijuana screen result. Health care providers should emphasize that the purpose of screening is to allow treatment of the woman's substance use, not to punish or prosecute her.
6. Present data are insufficient to assess the effects of exposure of infants to maternal marijuana use during breastfeeding. As a result, maternal marijuana use while breastfeeding is discouraged. Because the potential risks of infant exposure to marijuana metabolites are unknown, women should be informed of the potential risk of exposure during lactation and encouraged to abstain from using any marijuana products while breastfeeding.
7. Pregnant or breastfeeding women should be cautioned about infant exposure to smoke from marijuana in the environment, given emerging data on the effects of passive marijuana smoke.
8. Women who have become abstinent from previous marijuana use should be encouraged to remain abstinent while pregnant and breastfeeding.
9. Further research regarding the use of and effects of marijuana during pregnancy and breastfeeding is needed.
10. Pediatricians are urged to work with their state and/or local health departments if legalization of marijuana is being considered or has occurred in their state to help with constructive, nonpunitive policy and education for families.

RESOURCES

Additional resources include the AAP Resources on Marijuana (www.aap/marijuana), the AAP Section on Breastfeeding (www.aap.org/breastfeeding), the Academy of Breastfeeding Medicine (www.bfmed.org), the ACOG (www.acog.org/About-ACOG/ACOG-Departments/Breastfeeding), and LactMed (toxnet.nlm.nih.gov/newtoxnet/lactmed.htm).

LEAD AUTHORS

Sheryl A. Ryan, MD, FAAP
Seth D. Ammerman, MD, FAAP, FSAHM, DABAM
Mary E. O'Connor, MD, MPH, FAAP

COMMITTEE ON SUBSTANCE USE AND PREVENTION, 2017–2018

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LIAISON

Gregory Tau, MD, PhD – *American Academy of Child and Adolescent Psychiatry*

STAFF

Renee Jarrett, MPH

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ABBREVIATIONS

AAP: American Academy of Pediatrics
ACOG: American College of Obstetricians and Gynecologists
ECS: endocannabinoid system
MHPCD: Maternal Health Practices and Child Development Study
NSDUH: National Survey of Drug Use and Health
OPPS: Ottawa Prenatal Prospective Study
PRAMS: Pregnancy Risk Assessment Monitoring System
THC: δ-9-tetrahydrocannabinol

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DOI: https://doi.org/10.1542/peds.2018-1889

Address correspondence to Seth D. Ammerman, MD, FAAP, FSAHM, DABAM. E-mail: seth.ammerman@stanford.edu

PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275).

FINANCIAL DISCLOSURE: The authors have indicated they have no financial relationships relevant to this article to disclose.

FUNDING: No external funding.

POTENTIAL CONFLICT OF INTEREST: The authors have indicated they have no potential conflicts of interest to disclose.

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Medical Marijuana for Minors May Be Considered Child Abuse

Larissa Hines, MD,[a] Jill Glick, MD,[b] Kristin Bilka, MMS, PA-C,[b] John D. Lantos, MD[c]

The Food and Drug Administration categorizes marijuana (cannabis) as a Schedule I drug, meaning that it has no currently accepted medical use, a high potential for abuse, and no good data on safety. Other Schedule I drugs are heroin, lysergic acid diethylamide, peyote, methaqualone, and 3,4-methylenedioxymethamphetamine ("ecstasy"). The authors of some studies have shown that marijuana can reduce nausea and vomiting from chemotherapy, can improve food intake in patients with HIV, can reduce neuropathic pain, and may slow the growth of cancer cells. In many states, marijuana use is illegal. No state has approved its use for children. What, then, should doctors do if they become aware that parents are using marijuana to treat medical conditions in their children? What if the children have adverse reactions to the marijuana? In this Ethics Rounds, we present such a case and ask experts in child protection and child abuse to discuss the appropriate response.

The use of marijuana for medical purposes raises difficult scientific, legal, and ethical questions. The authors of some studies have shown that marijuana can reduce nausea and vomiting from chemotherapy, can improve food intake in patients with HIV, can reduce neuropathic pain, and may slow the growth of cancer cells.[1] Nevertheless, in many states, marijuana use is illegal. No state has approved its use for children. The Food and Drug Administration (FDA) categorizes it as a Schedule I drug, meaning that it has no currently accepted medical use, a high potential for abuse, and no good data on safety. Other Schedule I drugs are heroin, lysergic acid diethylamide, marijuana (cannabis), peyote, methaqualone, and 3,4-methylenedioxymethamphetamine ("ecstasy").[2]

What, then, should doctors do if they become aware that parents are using marijuana to treat medical conditions in their children? What if the children have adverse reactions to the marijuana? In this Ethics Rounds, we present such a case and ask experts in child protection and child abuse to discuss the appropriate response.

THE CASE

A 4-year-old boy with a curable lymphoma was undergoing chemotherapy as an outpatient. One evening, he was brought to the emergency department (ED) for altered mental status and vomiting beginning that morning. The mother reported that he had been acting normal the day before. He had finished 5 days of oral chemotherapy a few days before. The mother reported that he had received ondansetron at home but that it wasn't working. He continued to vomit in the ED. His Glasgow Coma Score was 11 to 12 with nonsensical speech. He had trouble focusing his eyes and his left pupil was notably larger than the right. A computed tomography scan of his head revealed acute intracranial process. An EEG revealed unremarkable results.

[a]Department of Pediatrics, The University of Utah, Salt Lake City, Utah; [b]Department of Pediatrics, The University of Chicago, Chicago, Illinois; and [c]Department of Pediatrics, Children's Mercy Hospital, Kansas City, Missouri

All authors contributed to the design, drafting, and review of the manuscript and approved the final manuscript as submitted.

DOI: https://doi.org/10.1542/peds.2017-4310

Accepted for publication Dec 28, 2017

Address correspondence to John D. Lantos, MD, Department of Pediatrics, Children's Mercy Hospital, 2401 Gillham Rd, Kansas City, MO 64108. E-mail: jlantos@cmh.edu

PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275).

FINANCIAL DISCLOSURE: The authors have indicated they have no financial relationships relevant to this article to disclose.

FUNDING: No external funding.

POTENTIAL CONFLICT OF INTEREST: The authors have indicated they have no potential conflicts of interest to disclose.

To cite: Hines L, Glick J, Bilka K, et al. Medical Marijuana for Minors May Be Considered Child Abuse. *Pediatrics*. 2018;142(4):e20174310

The results from his brain MRI were unchanged from those of a previous study from a month before.

His mental status improved throughout the night without specific treatment.

His toxicology screen results were found to be positive for cannabinoids. After being presented with this information, the mother told the doctors that she had purchased marijuana edibles in another state where the sale of marijuana is legal. She had provided the edibles to the patient to help with his pain and nausea.

The child abuse team was consulted on whether to report the case to Child Protective Services. The child abuse team asked for an ethics consultation. The question was should we report this as child abuse?

LARISSA HINES, MD, COMMENTS

Pediatricians who specialize in the evaluation of child abuse are often asked whether to report a family for suspected child abuse. Ethics consultants can also be helpful in these situations.

Each state has mandatory reporting laws. They vary slightly from state to state. In general, medical professionals are required to report if they have a "reasonable suspicion" or "reason to believe" that abuse has occurred. Each state uses different specific terminology. However, the general principle is the same. To adhere to this mandate, we must first understand what a reasonable suspicion is and what constitutes child abuse.

Many authors have attempted to define and understand reasonable suspicion. Study authors have sought to define reasonable suspicion and determine thresholds for reporting among community professionals, general physicians, and subspecialists. The authors of each of these studies have found that there is little agreement on what reasonable suspicion means and at what level of certainty a report is indicated.[3–5] The authors of 1 study showed that even child abuse experts do not agree on where the threshold for reporting lies.[6] Without a specific definition or cutoff for reasonable suspicion, there continues to be variability in reporting practices.[7] There are also numerous reasons that physicians may decide not to make a report, even when there is a suspicion for child abuse. These reasons include familiarity with the family, previous negative interactions with Child Protective Services, and resource limitations.[8]

Child maltreatment is defined as a situation in which acts (or omissions) by a caregiver lead to harm or potential harm to the child. Omissions can lead to charges of child neglect. Note that intent is not a part of these definitions. Many perpetrators of child abuse do not have a specific intent to harm the child. The majority of states have no laws regarding the obligation to report a suspected crime, except in the case of child abuse.

The question raised by this case, then, is whether the mother's actions rise to the level of harm that would mandate a report to Child Protective Services.

To answer this, we first have to determine if harm or potential harm occurred to the child. This child was seen in the ED and admitted to the hospital because of the change in mental status, which was presumably secondary to the marijuana ingestion. Although the symptoms improved, the giving of marijuana to a child should be considered as harm to the child, in much the same way that bruises or fractures, which go away, are considered to constitute harm. The fact that the child recovered without any apparent sequelae is not relevant to the mandate for reporting.

In this case it is important to weigh not only the harm and/or potential for harm to the child from the ingestion but also the harm and/or potential for harm by reporting to Child Protective Services. This child's cancer is likely curable. Cancer treatment can be toxic, and the side effects, including nausea and vomiting, can be difficult to manage. These side effects can have significant morbidity. The harm in reporting, then, includes both the potential harm to the child in being denied effective treatment, the psychological harm to the mother in being accused of child abuse, and the burden on an already stretched and underfunded child protection system. There is also a possibility that the child would be removed from his family during an already stressful time, given the cancer diagnosis, which could cause significant psychological harm.

Now we must consider the ethical dilemma rather than just the legal mandate. We can consider both the harm threshold and the best interest standard. When considering the harm threshold, harm was caused to this child, as evidenced by the altered mental status, from which he fully recovered. This mother has done a good job caring for this child who has cancer. However, she gave him a Schedule I narcotic, legally available in some states to purchase but illegal here, as a part of caring for him, which, instead of helping him, caused him harm. However, given her previous good care of the child, prompt response to his side effects, and apparent intentions that she wants to continue to do what is right for the child, it is, in my opinion, in the best interest of this child to have his mother continue to direct his medical care, on the condition that she does not continue to give him tetrahydrocannabinol and cause him more harm, at which point this would not only be considered above the legal threshold for reporting but also no longer in the child's

best interest. Although intent is not an explicit component of reporting laws, it is ethically relevant. This mother was clearly trying to help her son feel better and not trying to harm him. Although her intent was not to harm, her failure to disclose what she had done initially made this clinically more complicated and potentially risky and/or harmful to the patient. Being forthcoming when using treatments beyond what the medical team recommends or knows about can present a problem due to intended consequences, potential cross reactions, and other unforeseen consequences.

Although there is a legal mandate to report, ethically, it would be appropriate to forego reporting. There is no clear answer in this case, and the decision must be a judgement call by the providers involved in the case. Overall, looking at the total picture and giving the mother the benefit of the doubt, I would not report in this case. Instead, I would counsel the mother about the dangers of using marijuana to treat her son and give her a stern warning that, if this happens again, we would be compelled to report her to child protection.

DR JILL GLICK, MD, AND MS KRISTEN BILKA, PA, COMMENT

In the Child Abuse Prevention and Treatment Act,[9] child abuse and neglect are defined as, at a minimum, "any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse or exploitation" or "an act or failure to act which presents an imminent risk of serious harm." In the Child Abuse Prevention and Treatment Act, a minimal federal standard is defined and then each state is required to develop its own definitions of child abuse and neglect. Note that the legal definition of child abuse does not include intent; however, in the scenario above and in any question of medical neglect, it must be considered.

As mandated reporters, we are required to call Child Protective Services if we have "reasonable cause to believe" that abuse or neglect has occurred. Reasonable cause to believe means that a person with the same level of education and training would arrive at the same conclusion on the basis of the facts presented. In some clinical scenarios, the threshold to report is well defined. If, for instance, an infant presents with unexplained bruising and brain injury or a child discloses child sexual abuse, one clearly must report. In other cases, such as this one, the threshold for reporting is fuzzy.

Our interdisciplinary child advocacy team meets weekly to review all the consultations of the previous week. The most intense discussions arise from cases in which there is ambiguity and disagreement about our obligation to report a family to the child protection authorities. Different child maltreatment categories require a different decision algorithm: in the case of a child with physical injuries, we consider the age of the child, the nature of the injury, the history provided and its plausibility, the ways in which the caretaker recognized and responded to the injury, and any additional clinical findings, such as other occult injuries. When determining our obligation to report, we consciously exclude previous child welfare involvement and avoid speculation about the intent to harm. In cases of medical neglect, by contrast, we must consider whether the provision of questionable medical care or lack thereof resulted in harm or potential harm to the child. We consider parental capacity to understand the need for treatment, any barriers to care, and the resulting harms to the child. In these situations, we do consider the caretaker's intent.

We are aware of the drastic consequences that may follow a report to child protection. These consequences could affect the patient, the parents, the family, and the doctor. When we get it right, we can halt ongoing maltreatment and ensure a child's safety. But reporting can also be an adverse event. It can lead to the parent being permanently labeled as a "perpetrator," regardless of the type of maltreatment. The child may be removed from the home for days or months during the investigation. The physician-family relationship may be damaged, strained, or severed. The parents may never trust a physician again. The physician may hope for a specific intervention as a result of reporting, only to find child welfare moving in a different direction. The physician may sense a loss of control of the process after the filing occurs. A substantiated or indicated report can impact the parents' livelihood if they are teachers, child care providers, or in other professions that require background checks.

Given all of this, should we report this mother for giving her child an admittedly illegal substance that apparently caused harm?

Marijuana legalization is a controversial topic. Study authors have shown that the 2 main cannabinoids from marijuana reduce nausea and vomiting from chemotherapy, improve food intake in patients with HIV, reduce neuropathic pain, and may slow the growth of cancer cells.[10]

Still, marijuana is categorized as a Schedule I drug by the FDA (along with heroin and lysergic acid diethylamide), indicating no medicinal use. Nevertheless, 29 states have legalized medicinal use of this substance. In most of those states, it is only legal for adults. Currently, legal marijuana for medicinal use by children is limited to just a few situations, such as the use of cannabis

oil for children with intractable seizures.

The use of marijuana in any context is laden with ethical, legal, political, economic, and even spiritual controversies. But the law is fairly straightforward. The mother's use of marijuana in this case was illegal. And it seems to have led to harm. The mother knowingly took a risk and crossed over a legal threshold by purchasing marijuana. Each state's child welfare system has their own definitions of suspected maltreatment, and, regardless of our ethical opinions, we are obligated to attempt to report this to the child's state welfare system because marijuana is illegal. We don't know what the response will be. Some state child welfare systems may not take the report. Many states do not accept reports for in utero exposure of infants to marijuana.

That said, we ourselves would feel ambivalent about this case. We know that the mother's intent was to help her child. We can't help but ask ourselves whether, if we were in this mother's shoes, we would have done the same thing. We can't help wondering how we would have felt if the boy had improved after eating marijuana macaroons. What if his anxiety had resolved, his appetite had improved, and he was no longer nauseous? Wouldn't we feel that we had done the best possible thing for our child?

We would recommend informing the mother that we are legally mandated to report but that our common goal is to improve the health and well-being of her child. We would suggest that we work together toward our common goal. This would require close medical follow-up with more attentive efforts to control the side effects of chemotherapy. We would stress to the child protection workers that the mother's intentions were good.

In summary, when approaching how to define the threshold to report a family to a child welfare system, we must first take into account our state laws. Our medical opinion, however, must be directed by many other factors, including an understanding of the circumstances and the motivation of the parent. Child welfare systems rely on medical providers to make clear statements regarding our medical opinion about whether a child has been abused or neglected. This is a powerful role. We might also use this case to advocate for a change in state laws or policies regarding the well-intentioned use of marijuana in dire circumstances such as the ones that this mother faced.

JOHN D. LANTOS, MD, COMMENTS

Some cases beautifully illustrate the difference between legal considerations and ethical ones. It may be legally preferable to report this family to Child Protective Services. It is not ethically preferable.

Child protection laws mandate the reporting of suspected child abuse. Nevertheless, in many cases, the provider has some discretion in deciding whether a report to child protection agencies is obligatory. It is both necessary and appropriate for doctors to consider the circumstances of the case in deciding whether to report. As we know, there are many gray zones, much ambiguity, and significant practice variation in reporting practices. We also know that child protection systems are overburdened.

This mother needs compassionate care and good medical advice about the dangers of marijuana. She needs to know that she can trust doctors and the health care system and that we are on her side. She needs to know that she made a mistake in giving her child an unmeasured dose of cannabinoids. But she doesn't need to be accused of a crime and investigated as a criminal.

Doctors who care for children with diseases or symptoms for which cannabinoids might be an effective treatment have a duty to advocate for better studies of the efficacy of these agents in such clinical circumstances. Thus, for children with intractable seizures or with chemotherapy-induced nausea and vomiting, we should have institutional review board–approved protocols in place, and we should seek FDA approval for clinical trials. Children deserve such advocacy, just as they deserve the best medical care that we can provide. Nobody would be served by reporting this family to Child Protective Services.

All of the cases in Ethics Rounds are based on real events. Some incorporate elements of a number of different cases in order to better highlight a specific ethical dilemma.

ABBREVIATIONS

ED: emergency department
FDA: Food and Drug Administration

REFERENCES

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4. Levi BH, Brown G. Reasonable suspicion: a study of Pennsylvania pediatricians regarding child abuse. *Pediatrics.* 2005;116(1). Available at: www.pediatrics.org/cgi/content/full/116/1/e5

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10. National Institute on Drug Abuse. Marijuana as medicine. Available at: https://www.drugabuse.gov/publications/drugfacts/marijuana-medicine. Accessed July 15, 2018

Douglas, Craig J (CED)

From: Sawyer, Jane Preston (CED)
Sent: Friday, November 09, 2018 2:14 PM
To: Marijuana, CED ABC (CED sponsored)
Cc: Marijuana Licensing (CED sponsored)
Subject: Objection from Plumley
Attachments: Objection from Plumley.pdf

Forwarding objection for Board's inbox.

Jane Sawyer
Occupational Licensing Examiner
Alcohol and Marijuana Control Office
907-269-0350

From: CEDP-TUNDRASHREW <CEDP-TUNDRASHREW@alaska.gov>
Sent: Friday, November 09, 2018 2:13 PM
To: Sawyer, Jane Preston (CED) <jane.sawyer@alaska.gov>
Subject: Objection from Plumley

11/6/18

To all Director's

Concerning The Marijuna Cultivation Facility License a Pine Needle Way.

We are the Plumley's of Plumley Rd (since 1991) This past one House - Bad. To much Drugs in our area! Please don't ~~Let~~ This Happen anymore I have written many Time's about This, seem's you don't lessen very good Please Stop this

Bob + Linda Plumley

Douglas, Craig J (CED)

From: Steven Briody <whaleycooper@gmail.com>
Sent: Wednesday, October 31, 2018 2:43 PM
To: Marijuana, CED ABC (CED sponsored)
Subject: Dry sieve kief

Categories: Forwarded to MJ Licensing, Director

Hello,
I was curious as to how we, as cultivators, go about producing and selling kief. I've heard we need an add-on license but couldn't find info online about that. Also, if we were using failed bud to make kief, do we need permission to get it tested as we would selling to a manufacturer? We would like to start doing this but I'm having a hard time finding the relevant information online. Thanks!

Steven Briody
Coyote and Toad's Garden

Douglas, Craig J (CED)

From: Denali's Cache <thecache2016@gmail.com>
Sent: Wednesday, October 24, 2018 10:30 AM
To: Marijuana, CED ABC (CED sponsored)
Subject: New Signage Regulations

Categories: Enforcement

Hello,

Concerning the change in regulations about the 3 signs a business is allowed to have for advertising purposes. Two of the 4,800 sq/inch signs have to be attached to the premises or place in a window. One sign doesn't have to be. If a business was to place one sign in the parking lot visible from the highway that had the business name on both sides so it could be read from both northbound and southbound traffic, would that be allowed? Similar to a sandwich board I guess, but one sign with the business name printed on both sides, not a folding sandwich board sign.

Please let me know.

Thanks and have a great day!

Kevin James Schwan
Owner/Operator
970.819.0636

MM 238.9 Parks Hwy
Denali, AK 99755
denaliscannabiscache.com

Douglas, Craig J (CED)

From: CED AMCO REGS (CED sponsored)
Sent: Wednesday, October 17, 2018 3:38 PM
To: Marijuana, CED ABC (CED sponsored)
Cc: Marijuana Licensing (CED sponsored)
Subject: FW: Chelsea Foster- public testimony

Jedediah R. Smith
Local Government Specialist
Alcohol and Marijuana Control Office
(907) 334-2195
https://www.commerce.alaska.gov/web/amco/

From: Chelsea Foster <chelsea@keefinitreal.com>
Sent: Tuesday, October 16, 2018 3:53 PM
To: CED AMCO Enforcement (CED sponsored) <amco.enforcement@alaska.gov>
Cc: CED AMCO REGS (CED sponsored) <amco.regs@alaska.gov>; Marijuana Licensing (CED sponsored) <marijuana.licensing@alaska.gov>
Subject: Chelsea Foster- public testimony

I've attached my public testimony from today's MCB meeting. This is what I was trying to say! Nonetheless I've identified my own personal problem with public speaking and working on solutions to be better next time. (: thank you for your time !

All the Best,
Chelsea Foster
Keefin it Real
Owner

Hello my name is chelsea foster owner of Keefin it real soc
few minutes, I'll move quickly through my notes. As a cor
myself I'd like to address the previous events that are beir
an observer of these events Ive seen the public consumpt
one being the high times event. With that being said To the
no complaints in regards to odor , there was no violent bel
following these events. As an Alaskan, events and festivals
way for us to celebrate our rewarding summer days, after
participant fully understood if I chose to partake in consur
according to statute 17.38.040. Additionally 17.38.121 (a)
cultivation, manufacture , and sale of marijuana in the stat
licensed event Holders being fined for people personal ch
holders had several events in muni owned buildings with l
arrests or charges were made. These event holders are pr
educating people Within the cannabis culture. As a potent
application be priority over what seems to be an event hol
a few members of this board already know the foundation
marijuana businesses on is a risky and expensive one. Lea
building, permits, contractors, etc just to go through due p
straining. 10-14 months isn't a reasonable amount of time
mention having to renew your application before actually h
would be the inconsistencies in marijuana testing. It's plau
variation between individual flowers–that a sample's poten
equal probability that the entire harvest will have variability du
among the plants. The phenotypic variability will manifest as
and thus, differences in potency. I have a few proposed solut
AMCO staff needs to be larger than 6 or 7 people, there were
141 marijuana licenses for 2018 in the August 9th memoranc
marijuana licenses in Alaska. Secondly the fining of event ho
enforcement officers. Lastly in regards to testing inconsistenc
future. Thank you for your time

Douglas, Craig J (CED)

From: Tammy B <xtratufchic@gmail.com>
Sent: Tuesday, October 16, 2018 2:02 PM
To: Marijuana, CED ABC (CED sponsored)

Categories: Craig

Hi there

Trying to listen in on the AMCO meeting and not able too. It says the chairperson needs to arrive. Can you help? Thanks!
Sent from my iPhone

Douglas, Craig J (CED)

From: Amanda Cardenas <cardenasa@brtside.com>
Sent: Tuesday, October 16, 2018 12:42 PM
To: Marijuana, CED ABC (CED sponsored); Marijuana Licensing (CED sponsored)
Subject: Questions

Hello,

I have several questions:

1. Are public companies allowed to be marijuana applicants/licensees?
2. Are licensee agreements with management companies permitted?
3. Are there any restrictions on real estate owners of a dispensary charging a lease/rent % of the store revenue?
4. What is the Alaska medical marijuana patient population and population %?

Thank you,

Amanda Cardenas
Legal and Compliance Officer
Briteside Holdings, LLC
cardenasa@brtside.com
818-389-2269 (cell)
Briteside

Douglas, Craig J (CED)

From: Marijuana Licensing (CED sponsored)
Sent: Tuesday, October 16, 2018 9:17 AM
To: Marijuana, CED ABC (CED sponsored)
Subject: FW: Insurance For Residential Marijuana Businesses

Comment for MCB.

Jane

-----Original Message-----
From: Mitchell Hrachiar <mrh@alaska.net>
Sent: Saturday, October 13, 2018 11:21 AM
To: Marijuana Licensing (CED sponsored) <marijuana.licensing@alaska.gov>
Cc: Alcohol Licensing, CED ABC (CED sponsored) <alcohol.licensing@alaska.gov>
Subject: Insurance For Residential Marijuana Businesses

-----Original Message-----
From: Mitchell Hrachiar <mrh@alaska.net>
Date: Saturday, October 13, 2018 at 11:16 AM
To: <marijuana.licensing@alaska.gov>
Cc: <alcohol.licensing@alaska.gov>
Subject: Insurance For Residential Marijuana Businesses

>Hello Board,
>
>As a rental owner I am required to have liability insurance, I would
>expect all Growing business¹s to also have insurance. With the Nature
>of Marijuana growing businesses they have large amounts of the crop on
>site and retail businesses paying cash for the crop, all stored at the
>growing facility. I doubt if Home owners insurance covers these
>businesses or liability to adjacent properties for these businesses.
>Please consider liability insurance for the property and adjacent areas
>to protect the innocent. If a grower has a Limited Liability
>Corporation they should have articles of incorporation on file and
>LLC's also require liability insurance.
>
>Please consider liability insurance for the property and adjacent areas
>to protect the innocent.
>
>
>
>Regards,
>XXXXXX XXXXXX
>I don¹t want to give my name or address.

Douglas, Craig J (CED)

From: Brita Speck <specklaw@ptialaska.net>
Sent: Tuesday, October 09, 2018 5:24 PM
To: Marijuana Licensing (CED sponsored); Marijuana, CED ABC (CED sponsored)
Cc: 'Connor Nelson'
Subject: Objection License #10066, #10067
Attachments: 2018-10-09.Green Leaf. License Objection.PDF

Categories: Forwarded to MJ Licensing

Dear AMCO:

Attached please find Objection to License Renewals #10066 and #10067 re: Green Leaf, Inc. currently up for consideration as **TAB 64 & 65** at the AMCO meeting on October 16-17, 2018 .

Sincerely,

Brita Speck

Attorney

PO Box 6458

Sitka, AK 99835
(t) 907-747-3750
(f) 907-747-3750

P.O. Box 6458, Sitka AK 99835

BRITA SPECK | LAW OFFICE, LLC

(907) 747-3750 Fax: (907) 747-3750 264 Katlian Street specklaw@ptialaska.net

Alcohol & Marijuana Control Office
550 W 7th Ave, Suite 1600
Anchorage, AK 99501
marijuana.licensing@alaska.gov

RE: Marijuana Control Board Meeting
October 16-17, 2018

Green Leaf, Inc. #10066 (cultivation) and #10067 (retail) located in Sitka, Alaska

OBJECTION TO LICENSE RENEWALS

Dear Members of Alaska Marijuana Control Board:

I am the attorney for Connor Nelson, owner and landlord of the properties located at 4612 and 4614 Halibut Point Road, Sitka, Alaska. This letter will serve as a formal objection to the renewal of licenses #10066 and #10067 of Green Leaf, Inc. As you may be aware, there are a multitude of legal and administrative issues that warrant AMCO's non-renewal of these licenses.

FALSE STATEMENTS ON FORM (MJ-17) AND RENEWAL (MJ-20)

Connor Nelson is a 10% owner in Green Leaf, Inc.[1] On August 5, 2018, Aaron Bean, the majority shareholder of Green Leaf, Inc., unilaterally removed Connor Nelson as an owner of Greenleaf, Inc. by filing with the State Department of Commerce, Corporations, documenting that he was 100% owner of the Corporation,[2] a Change of Ownership with AMCO (MJ-17) and the AMCO Renewal applications (MJ-20) currently under your review by **falsely stating that he is the sole owner of Green Leaf, Inc**. These documents are false, filed under false pretenses, and are intentionally misleading to AMCO, as there has been no sale or actual transfer of shares.[3]

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[1] See State of Alaska, DCED, Corporations Section, Notice of Change of Officials (Exhibit 1), State of Alaska, DCED, Corporations Section, Biennial Report (Exhibit 2), and signed Stipulation by Bean and State of Alaska Department of Labor, stipulating, among other items, that Bean owned 90% and Nelson owned 10% of Green Leaf, Inc. (Exhibit 3).

[2] Exhibit 4.

[3] As with any applicant, Bean should be required to provide supporting materials to AMCO when there is a legitimate claim to the legitimacy of an application or AMCO forms. In this case, AMCO should require written signed proof by both Nelson and Bean regarding the purchase of Nelson's shares, such as a purchase agreement.

There is currently a lawsuit regarding this matter, 1SI-18-109CI. Beginning in May 2018 Mr. Bean, and his attorney Jana Weitzen, threatened to remove Mr. Nelson as a shareholder if he did not sign the MJ-20, Renewal Application Certifications. Unfortunately, Mr. Nelson was denied access corporate

BREACH OF LEASE AGREEMENTS

Green Leaf, Inc. is currently in breach of the two (2) lease agreements that pertain to the retail and cultivation of marijuana. FED hearings are currently scheduled for October 11, 2018, and after the extended time for quit required for agricultural tenants, a FED action will be filed for the 4614 premises. The violations of the 4612 Halibut Pt. Road lease agreement are as follows:

- Failure to pay property tax in the amount of $826.00 (as required by Lease Sec. 23);
- Failure to pay security deposit in the amount of $100.00 (Lease Sec. 9);
- Failure to maintain general comprehensive liability insurance throughout the duration of the lease (Lease Secs. 10 & 15);[4]
- Failure to allow Landlord access, despite compliance with AMCO regulations (Sec. 22);
- Failure to comply with all municipal, including City code 22.30.250 regarding parking, odor, and waste-water (Sec. 12);[5]
- Failure to comply with all state laws, including and AS 23.30.075 requiring workers compensation insurance (Sec. 12);[6]
- Failure to pay rent October, 2018.

The violations of the 4614-lease agreement are all items above, with an additional violation of Failure to pay the increase in premium for fire and extended coverage for premise 4614 HPR, resulting from the use of the premises by Tenant (Sec. 15).

CITY CODE & STATE LABOR LAW VIOLATIONS

On May 24, 2018 the City of Sitka Planning Department issued a Notice of Alleged Violations.[7] As of the date of this letter, Green Leaf, Inc. has not responded to or remedied the violations and Green Leaf, Inc. is currently operating in violation of Sitka General Code, Section 22.30.250. In addition, Green Leaf, Inc. has twice violated the State Workers' Compensation

---

records and lacked *any* information regarding Green Leaf's operation, and therefore Mr. Nelson could not lawfully complete the MJ-20 (as he could not rightly attest, under the penalty of perjury, that Green Leaf was operating under the various laws of the State. To the contrary, Mr. Nelson had received no 2017 K-1 or any notice of an extension, Mr. Nelson was in receipt of information regarding City Code violations and in July 2018 received notice of subsequent lapse in Worker's Compensation Insurance.

[4] Lapse dates for Commercial General Liability and Products Liability dates June 26-August 14, 2018, which prevented Landlord from renewing the property insurance for the entire premises for most of August. This left the property (valued in excess of $1 MIL) entirely uninsured, to which Landlord holds personal liability.

[5] See City and Borough of Sitka, Planning Department, Notice of Alleged Violations or Restrictions or Conditions, dated May 24, 2018 (Exhibit 5).

[6] See email from David Price, Investigator III, Alaska Division of Workers' Compensation, indicating another lapse in Workers' Compensation Insurance (Exhibit 6).

[7] See Exhibit 5, above.

laws, including its most recent lapse in July 2018.[8] In fact, Mr. Nelson has regularly become aware of numerous other allegations and violations in his dealings with Green Leaf, Inc. and Mr. Bean that put his faith in the lawfulness of Green Leaf's operations seriously in doubt.

CONCLUSION

I strongly urge you to DENY the renewal applications for Green Leaf, Inc. This business has provided false statements, breached material lease obligations, and demonstrated to the City, State, and AMCO that it does not respect the laws to which it is obliged to follow.

Sincerely,

Brita Speck, Esq.

enclosures
cc: Nelson

[8] See Exhibit 6.

Date Filed: 09/07/2017
State of Alaska, DCCED

3710546

THE STATE of ALASKA
Department of Commerce, Community and Economic Development
Division of Corporations, Business and Professional Licensing

COR

FOR DIVISION USE ONLY

RECEIVED
Juneau
SEP 07 2017
CBPL

J QC ~~PAYS~~

Corporations Section
State Office Building, 333 Willoughby Avenue, 9th Floor
PO Box 110806, Juneau, AK 99811-0806
Phone: (907) 465-2550 · Fax: (907) 465-2974
Email: *corporations@alaska.gov*
Website: *Corporations.Alaska.Gov*

Notice of Change of Officials

Domestic Business Corporation (AS 10.06)

- This Notice of Change of Officials form is only for Domestic Business Corporations and is used to report changes between biennial reporting periods in: officers, directors, alien affiliates, and shareholders.
- This Notice of Change of Officials will not be filed if the entity's biennial report is not current. To verify the entity's biennial report due date, go online to www.Corporations.Alaska.Gov and select, *Search Corporations Database*
- Standard processing time for complete and correct filings submitted to this office is approximately 10-15 business days. All filings are reviewed in the date order they are received.
- The information you submit is a public record and will be posted on the State's website.

1. Important: AS 10.06.813

Each Domestic Business Corporation is required to notify this office when there is a change of officials.
— *AS 10.06.813*

Failure to meet this requirement may result in involuntary dissolution of the entity's authority to transact business in the State of Alaska.
— *AS 10.06.633(5)(7)*

The Domestic Business Corporation is to keep and make available the records of the official(s) changes.
— *AS 10.06.430*

2. Fee: ☐ $25 Nonrefundable Filing Fee (CORF) 3 AAC 16.030(b)

Mail this form and the non-refundable $25 filing fee in U.S. dollars to the letterhead address. Make the check or money order payable to the State of Alaska, or use the attached credit card payment form.

3. Entity Information: AS 10.06.813

Entity Name: Green Leaf, Inc.

Alaska Entity Number: 10036065

K1944342

Exhibit 1

4. REMOVE from Record: AS 10.06.813(b)

The following officials (officers, directors, shareholders, and alien affiliates) will be completely removed from the record as a result of this filing. If necessary, use the following SUPPLEMENT page.

RECEIVED
Juneau
SEP 07 2017
CBPL

Name: _____ Name: _____

Name: _____ Name: _____

If an official is not being removed from record, then list them in Item #5 below (with their current information).

5. ALL Current Officials: AS 10.06.813(b) and AS 10.06.950

The following is a complete list of ALL remaining and new officials who will be on record as a result of this filing.

Domestic Business Corporations must have a President, Secretary, Treasurer, and at least one Director. The President and the Secretary cannot be the same person unless the President is 100% shareholder. The entity must also provide all shareholders who own 5% or more of the issued shares, and all alien affiliates.
— *AS 10.06.453 and 10.06.483*

List **ALL** officials and their current information to be on record.
BOLD fields are required.

FULL LEGAL NAME	COMPLETE MAILING ADDRESS	% Owned	Shareholder	PRESIDENT	Vice-President	SECRETARY	TREASURER	DIRECTOR	Assistant Secretary	Assistant Treasurer	Alien Affiliate
Aaron Bean	215 Peterson Ave, Sitka, AK 99835	90	x	x			x	x			
Connor Nelson	215 Peterson Ave, Sitka, AK 99835	10	x			x					

→ If necessary, use the following SUPPLEMENT page.

6. Required Signature: AS 10.06.813(b) and AS 10.06.825

The Notice of Change of Officials must be signed by the President or Vice-President of the corporation. Persons who sign documents filed with the commissioner that are known to the person to be false in material respects are guilty of a class A misdemeanor.

Signature: _____ Date: 8/30/17

Printed Name: Aaron Bean

Title of Authorized Signer: ☒ President — or — ☐ Vice-President

Date Filed: 12/14/2017
State of Alaska, DCCED

THE STATE of ALASKA

Department of Commerce, Community, and Economic Development
Division of Corporations, Business, and Professional Licensing
PO Box 110806, Juneau, AK 99811-0806
(907) 465-2550 • Email: *corporations@alaska.gov*
Website: *Corporations.Alaska.gov*

FOR DIVISION USE ONLY

Web-12/14/2017 4:26:03 PM

Business Corporation

2018 Biennial Report

For the period ending December 31, 2017

- This report is due on January 02, 2018
- $100.00 if postmarked before February 02, 2018
- $137.50 if postmarked on or after February 02, 2018

Entity Name: Green Leaf, Inc.
Entity Number: 10036065
Home Country: UNITED STATES
Home State/Province: ALASKA

Registered Agent

Name: Jana Weltzin
Physical Address: 3003 MINNESOTA DR #201, ANCHORAGE, AK 99503
Mailing Address: 3003 MINNESOTA DR #201, ANCHORAGE, AK 99503

Entity Physical Address: 4614 HPR, SITKA, AK 99835

Entity Mailing Address: 215 PETERSON AVE, SITKA, AK 99835

Please include all officials. Check all titles that apply. Must use titles provided. All domestic business corporations must have a president, secretary, treasurer and at least one director. The secretary and the president cannot be the same person unless the president is 100% shareholder. The entity must also list any alien affiliates and those shareholders that hold 5% or more of the issued shares.

Name	Address	% Owned	Titles
Aaron Bean	215 PETERSON AVE, SITKA , AK 99835	90	Director, President, Shareholder, Treasurer
CONNOR NELSON	215 PETERSON AVE, SITKA, AK 99835	10	Secretary, Shareholder

Purpose: Purpose to engage in cultivation, processing, and sale of crops.

NAICS Code: 111998 - ALL OTHER MISCELLANEOUS CROP FARMING

New NAICS Code (optional):

Complete the below stock information on record with the Department. You may not change your authorized shares with this form. An amendment is required. Fill in number of shares issued.

Class	Series	Authorized	Par Value	Amount Issued
Common		1000000	$0.81	1000000

I certify under penalty of perjury under the Uniform Electronic Transaction Act and the laws of the State of Alaska that the information provided in this application is true and correct, and further certify that by submitting this electronic filing I am contractually authorized by the Official(s) listed above to act on behalf of this entity.

Name: Jana D. Weltzin

Exhibit 2

ALASKA WORKERS' COMPENSATION BOARD

IN THE MATTER OF THE PETITION FOR FAILURE TO INSURE FOR WORKERS' COMPENSATION LIABILITY,

STATE OF ALASKA, DIVISION OF WORKERS' COMPENSATION,

Petitioner,

vs.

GREEN LEAF, INC.,

Employer/Respondent.

AWCB No.700005792

STATE OF ALASKA
Department of Labor & Workforce Development
Workers' Compensation Special Investigations Unit
P.O. Box 115512 – 1111 West 8th Street, Room 305
Juneau, Alaska 99811
TELEPHONE (907) 465-5875 • FACSIMILE (907) 465-2797

STIPULATION OF UNDISPUTED FACTS AND PROPOSED BOARD ORDER

The parties have agreed to the facts set forth below, to the proposed penalty, and to the attached exhibits. The parties jointly petition the Alaska Workers' Compensation Board (Board) for an order finding Green Leaf, Inc. (herein referred to as "Employer") is an Alaska employer that failed to insure pursuant to AS 23.30.075, and assessing a civil penalty for failure to insure pursuant to AS 23.30.080(f).

I. THE DIVISION'S KNOWLEDGE

The State of Alaska Workers' Compensation Division's Special Investigations Unit ("Division") learned of Green Leaf, Inc.'s uninsured status on or about June 8, 2017, during a routine compliance check of expired/cancelled workers' compensation policies. The Division conducted records checks of current policies in the National Council for Compensation Insurance (NCCI) database and in its own Proof of Coverage database. The result of those searches revealed that Employer was never insured for workers' compensation liability.

Exhibit 3
14 pages

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II. BUSINESS STATUS AT TIME OF LAPSE

During the time periods relevant to the underlying Petition for Failure to Insure and through the present, Green Leaf, Inc. has operated as a corporation in Sitka, Alaska. The Department of Commerce, Community and Economic Development, Division of Corporations, Business and Professional Licensing has Aaron Bean listed as Director/President/Secretary/Treasurer and 100% Shareholder.

On September 7, 2017 a Notice of Change of Officials was filed, which added Connor Nelson as Secretary and 10% Shareholder.

III. AUTHORITY TO ACT

There are no attorneys representing Green Leaf, Inc. or any of its Executive Officers. Aaron Bean and Connor Nelson are the only individuals who have authority to act on behalf of Green Leaf, Inc.

IV. ENTITY LICENSING

The following business information is on file with the State of Alaska, Division of Commerce & Economic Development, in relation to Green Leaf, Inc. relevant to the current Executive Officers and subject lapse in insurance coverage:

1. **Green Leaf**: Business License #1032755, originally issued 2/23/2016, expires 12/31/2018, owned by Green, Leaf, Inc., principal mailing address 215 Peterson Ave., Sitka, Alaska, 99835. **(Exhibit 1 – Alaska Business Licensing Printout)**
2. **Green Leaf, Inc.**: Corporate Entity #10036065 effective 2/23/2016, status active – good standing, registered agent Jana Weltzin, principal mailing address 3003 Minnesota Drive #201, Anchorage, Alaska, 99503; Aaron Bean, Director/President/Treasurer/90% Shareholder and Connor Nelson, Secretary 10% Shareholder. **(Exhibit 2 – Alaska Corporations Printouts)**
3. **Executive Waiver**: A petition for an Executive Officer Waiver is in the process of being approved, which will give an exemption to Aaron Bean and Connor Nelson. The parties agreed the hours worked by Aaron Bean and Connor Nelson during the

uninsured period will not be included in the penalty calculation for uninsured employee workdays.

V. NOTIFICATION AND SERVICE

On September 1, 2017, the Division sent Employer a petition for finding of failure to insure under AS 23.30.075 and assessment of civil penalty under AS 23.30.080(f). The petition was accompanied by a discovery demand and affidavit of service. The documents were served on September 5, 2017 via certified return receipt mail through the United States Postal Service (Certified Return Receipt # 91 7108 2133 3937 6880 6322 and Certified Return Receipt # 91 7108 2133 3937 6880 6315) **(Exhibit 3 – USPS Return Track & Confirm Printouts)**

Employer maintained contact with the Division both prior and subsequent to receiving the petition, and provided discovery within the thirty (30) day requirement.

VI. UNINSURED STATUS/CURRENT COVERAGE

The parties agree Employer had one (1) lapse in workers' compensation insurance coverage during the time period relevant to the underlying petition. **(Exhibit 4 - State of Alaska POC Printout and NCCI Proof of Coverage Printouts)** The lapse is summarized as follows:

LAPSE 1: The employer first became insured on July 22, 2017, and therefore incurred a lapse in coverage from the first day it utilized employee labor on January 5, 2017, until it obtained coverage through Travelers Property Casualty Company of America Policy Number: 6JUB8H26131217.

CURRENT COVERAGE: Employer is currently insured under Travelers Property Casualty Company of America Policy Number: 6JUB8H26131217 (effective 7/22/2017 – 7/22/2018)

The parties agree that the utilizing of employee labor started on January 5, 2017, so coverage was not required prior to this date. The parties agree that a penalty will not be assessed for the period February 23, 2016 to January 5, 2017. Employer's failure to insure for the lapse period totals 198 total uninsured calendar days. **(Exhibit 5 – Duration Calculation**

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Results) Employer maintains the lapse occurred due to inexperience while utilizing employees in a business setting, and the belief that workers' compensation coverage was included with the unemployment insurance that is paid to the State of Alaska. **(Exhibit 6 – 9/27/2017 Written Statement by Aaron Bean)** Employer intends to prevent any future lapses by making sure that more attention is given to Alaska-mandated requirements such as insurance and labor laws.

VII. BUSINESS ACTIVITY AND EMPLOYEES PER DAY UNINSURED

Employer is a year round marijuana cultivation and retail business operating out of one location in Sitka, Alaska. Employer is open Monday through Saturday, from 10 am to 10 pm and Sunday from 10 am to 7 pm, and generally employs approximately 10 individuals to conduct its business operations. Employees work on the production of flower at the cultivation facility and are expected to perform duties such as trimming flowers, watering, compliance, and general labor. The individuals working retail sell the finished products, as well as other marijuana-related merchandise.

Based on review of Employer's discovery responses and for purposes of AS 23.30.080(f), the parties agree there are 819 total uninsured employee workdays involving 10 employees who worked during the lapse period. **(Exhibit 7 – Uninsured Employer Worksheet; Exhibit 8 – Employer's Payroll Records; Exhibit 9 – ESD Payroll Reporting Printouts)**

VIII. CURRENT POLICY PREMIUM INFORMATION

As stated above, Employer is currently insured under Travelers Property Casualty Company of America Policy #6JUB8H26131217 (effective 7/22/2017 – 7/22/2018). ***(See* Exhibit 4 – NCCI Proof of Coverage Printouts)** The most current annual premium charged to insure Employer's Alaska employees is $4,075.00. **(Exhibit 10 – Relevant Policy Information)** Based on this premium, the daily cost to insure is $11.16. At this daily rate, Employer would have paid a total pro-rated premium of $2,209.68 for the 198 uninsured calendar days had it been in compliance with the Alaska Workers' Compensation Act. ***(See* Exhibit 7 - Uninsured Employer Worksheet)**

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IX. OCCUPATIONAL INJURY HISTORY

Division records do not show any reports of occupational injury for Employer. Under AS 23.30.075(b), Employer and its officers are jointly and severally liable for any occupational injuries that occur during the time it is uninsured and subject to penalties provided in AS 23.30.080 for any claims arising during the period of time it was in violation of AS 23.30.075.

Employer understands it is responsible for filing all documents necessary to receive credit for payments made directly to any uninsured injured employee, and/or payments made directly to uninsured injured employees' medical providers.

X. PREVIOUS VIOLATIONS/STOP ORDERS

The parties agree that Employer has not previously appeared before the Board.

The parties further agree that Employer did not violate a stop order.

XI. AGGRAVATING FACTORS

The parties respectfully submit the following aggravating factors apply here:

1. Violation of AS 23.30.075 that exceeds 180 calendar days [8 AAC 45.176(d)(3)]
2. Lapses in business practice that would be used by a reasonably diligent business person [8 AAC 45.176(d)(14)]

XII. DOCUMENT RECEIPT AND FUTURE COVERAGE

The parties stipulate, admit, and agree that (1) Employer was properly served with all relevant evidence and pleadings in this matter; (2) Employer's Executive Officers have reviewed all documents in this matter, including those attached to this stipulation; and (3) they are all part of the record of this case.

The parties request the Board approve this stipulation and proposed penalty in lieu of an oral hearing and stipulate that all other rights and obligations under the Act are not affected other than the resolution of Employer's exposure as plead in the subject petition.

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The parties agree that Employer shall maintain Alaska workers' compensation coverage for its Alaska employees, and that the Division will monitor Employer for compliance on a quarterly basis for the duration of the penalty payment period.

XIII. PROPOSED PENALTY

The parties respectfully request that, while a penalty is appropriate in this case, the Board be mindful that the primary goal of a penalty under AS 23.30.080(f) is restorative: to bring an employer into compliance, deter further lapses, ensure the continued employment of employees in a safe work environment, and to satisfy the community's interest in fairly penalizing an offender. A penalty is not intended to destroy a business or cause the loss of employment, as stated in *Alaska R & C Communications, LLC v State of Alaska, Division of Workers' Compensation*, AWCAC Appeal No. 07-043, Decision #088 (September 16, 2008).

The parties agree Employer has no more than two (2) aggravating factors pursuant to 8 AAC 45.176(a)(3).

The maximum possible civil penalty for 819 uninsured employee workdays assessed at $50.00 per day under 8 AAC 45.176(a)(3) would amount to $40,950.00. The parties request that the Board consider Employer's cooperation and execution of a confession of judgment **(Exhibit 11 – Confession of Judgment Without Action)**, and find that a civil penalty of $8,190.00 is appropriate in this case. The proposed assessed civil penalty equates to $10.00 per day times the 819 uninsured employee workdays.

The parties agree Employer is entitled to a discount of up to a maximum twenty-five percent (25%) pursuant to 8 AAC 45.176(a)(3). The discount amount is $2,047.50. After applying the discount, the total penalty to be paid is $6,142.50, which equates to $7.50 per day times the 819 uninsured employee workdays. The parties also propose and agree that a suspension from the discounted civil penalty is appropriate given that this is a newly legalized industry in Alaska, which is heavily regulated, and that federally regulated institutions such as banksrefuse to handle financial transactions related to the marijuana industry. This makes simple business transactions, such as securing insurance, a little more difficult in this industry.

The proposed civil penalty amount to be suspended is $642.50. The total payable penalty is calculated as follows:

Assessed Civil Penalty: $8,190.00

Less 25% Discount: - ($2,047.50)

Discounted Civil Penalty Balance: $6,142.50

Less Suspended Amount: - ($642.50)

Total Payable Civil Penalty after Discount and Suspension Applied: $5,500.00

The parties agree if at any time prior to paying the discounted and suspended penalty in full Employer fails to (a) make timely penalty payments, (b) insure its employees for workers' compensation liability, or (c) pay compensable benefits for uninsured occupational injuries, the total unpaid penalty amount, to include any amount discounted and suspended, shall become immediately due and owing.

The parties feel this effective civil penalty is appropriate disincentive to prevent Employer from consciously failing to insure its workers.

XIV. RECOMMENDED PAYMENT PLAN

The parties agree it would be financially devastating for Employer to pay the total payable civil penalty in one lump sum payment, and agree to a reasonable payment plan. **(Exhibit 12 - Financial Statement from Aaron Bean)** Employer shall pay the total payable penalty by making an initial payment of $1,000.00 within seven (7) days after the date of service of the Board's order approving this stipulation. The remaining balance shall be paid in nine (9) equal installment payments of $500.00 each on the 7th of the month, commencing on January 7, 2018, and continuing until the total payable penalty is paid in full with a final payment of $500.00 on or before September 7, 2018.

In the alternative, Employer will make payments according to the schedule above until the business is sold or transferred. This may be either by sale or transfer of shares or membership interest constituting a majority interest in the entity; sale or transfer of substantial assets necessary to operate the business under any name including but not limited to equipment and other tangible property, title to or leasehold interest in real property, any alcohol or marijuana license or permit in current or future possession of Employer as described on **(License #10066 and License #10067)** or described at time of obtaining such

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license or permit, and any intangible property subject to transfer as listed pending sale; or any combination thereof. **Upon any such sale or transfer, Employer will pay the remaining payable penalty balance in full within 10 days of closing of transaction.**

Employer will notify the Division of any pending sale at least 60 days prior to closing of sale or transfer transaction. Employer will provide written evidence of buyer's intent to purchase including but not limited to an Earnest Money Agreement or other documentation of buyer's intent to the Division, and will provide for payment to the Division of any outstanding payable penalty balance at the time of closing in sale or transfer documents.

Employer shall notify the Division of any change in entity status including but not limited to dissolution of the entity or conversion to alternate entity status. Upon any dissolution of entity, Employer will pay the remaining penalty balance within 10 days of the date of dissolution as documented by the Alaska Division of Corporations, Business and Professional Licensing.

Employer will notify the Division of any changes to mailing and physical addresses, contact telephone numbers, and email addresses.

XV. DEFAULT ON PAYMENT PLAN

If Employer is delinquent in making payment under the agreement set forth above or sells or transfers the business without notifying the Division or satisfying the remaining balance owed, the Director of the Division of Workers' Compensation may declare Employer in Default under AS 23.30.080(g) and pursuant to the signed Confession of Judgment Without Action. (***See* Exhibit 11 – Confession of Judgment Without Action**).

If the Director declares Employer in default, a request for entry of judgment pursuant to AS 23.30.080(g), the signed Confession of Judgment Without Action, and a declaration of default, may be filed in superior court.

XVI. PARTIES' PETITION TO THE ALASKA WORKERS' COMPENSATION BOARD

The parties request the Board to review this stipulation and the attached exhibits, to consider the proposed findings and penalty detailed above, and to immediately and without further notice, review, approve, and file the proposed Order finding failure to insure and assessing a total civil penalty of $8,190.00, discounted to $6,142.50, and further suspended to a total payable penalty of $5,500.00 on the specific conditions outlined above.

The parties under oath and penalty of perjury affirm they are the persons who signed the foregoing stipulation of undisputed facts and proposed resolution, and that the statements therein are true and correct.

ALASKA DIVISION OF WORKERS' COMPENSATION
SPECIAL INVESTIGATIONS UNIT

DATED: 12-14-17 By _____
David J. Price, Investigator III

SUBSCRIBED and SWORN to before me this 14 day of December 2017.

STATE OF ALASKA
OFFICIAL SEAL
Madison Gambala
NOTARY PUBLIC
My Commission Expires With Office

_____
Notary Public in and for Alaska
My Commission expires: With office

GREEN LEAF, INC.

DATED: 12/1/17 By _____
Aaron Bean, Director/President/Treasurer/90% Shareholder

SUBSCRIBED and SWORN to before me this 1st day of December, 2017.

JESSICA C. CABICO
NOTARY PUBLIC
MY COMMISSION EXPIRES AUGUST 29 2020
STATE OF ALASKA

_____
Notary Public in and for Alaska
My Commission expires: 08/29/2020

STATE OF ALASKA
Department of Labor & Workforce Development
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GREEN LEAF, INC.

DATED: 12/1/17 By Connor Nelson
Connor Nelson, Secretary/10% Shareholder

SUBSCRIBED and SWORN to before me this 1st day of December, 2017.

JESSICA C. CABICO NOTARY PUBLIC STATE OF ALASKA MY COMMISSION EXPIRES AUGUST 29, 2020

Jessica C Cabico
Notary Public in and for Alaska
My Commission expires: 08/29/2020

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IN THE MATTER OF THE PETITION FOR A FINDING OF THE FAILURE TO INSURE WORKERS' COMPENSATION LIABILITY ASSESSMENT OF A CIVIL PENALTY AGAINST

Green Leaf, Inc.
AWCB Case No.: 700005792

ORDER OF THE BOARD

1. Green Leaf, Inc. and its Executive Officers Aaron Bean and Connor Nelson are jointly and severally liable for any uninsured compensable claims arising during the periods they were in violation of AS 23.30.075.

2. Green Leaf, Inc. (hereafter referred to as "Employer") incurred one lapse in workers' compensation insurance liability coverage, from January 5, 2017 to July 22, 2017, for a total of 198 uninsured calendar days.

3. Employer incurred 819 uninsured employee workdays during the lapse in coverage referenced in Paragraph 2 above.

4. Under AS 23.30.080(f), Employer is assessed a civil penalty of $8,190.00 for 819 uninsured employee workdays, or $10.00 per day pursuant to 8 AAC 45.176(a)(3).

5. Two times the pro-rated premium in this matter is $4,419.36.

6. Pursuant to 8 AAC 45.176(a)(3), Employer is entitled to a discount of up to a maximum of 25% of the penalty assessed. The discount amount in this matter is $2,047.50. Employer is also conditionally granted an additional suspension in the amount of $642.50. The total payable penalty after applying the discount and suspension amounts is $5,500.00.

7. Under AS 23.30.080(f), the Board orders Employer to pay a total payable civil penalty of **$5,500.00**, calculated as follows:

   - Assessed Civil Penalty: $8,190.00
   - Less 25% Discount: - ($2,047.50)
   - Discounted Civil Penalty Balance: $6,142.50
   - Less Suspended Amount: - ($642.50)
   - **Total Payable Civil Penalty after Discount and Suspension Applied: $5,500.00**

   The first payment of $1,000.00 shall be due within seven (7) days after the date of service of the Board's order approving this stipulation. The remaining balance shall be paid in nine (9) equal installment payments of $500.00 each on the 7th of the month, commencing on January 7, 2018, and continuing until the discounted and suspended penalty is paid in full with a final payment of $500.00 on or before September 7, 2018.

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8. **Payment shall be by cashier's check, money order, bank check, or cash.**

9. **Payments made by cashier's checks, money orders, and bank checks must be made payable to the Alaska Workers' Compensation Benefits Guaranty Fund and sent to the Alaska Department of Labor, Division of Workers' Compensation, P.O. Box 115512, Juneau, Alaska, 99811-5512, and shall include on the face reference to AWCB Case No. 700005792.**

10. **Payments made by cash must be made in accordance with the Cash Payment Instructions attached to this Order as the Board's Order Exhibit A. Account verification of cash deposits made shall be immediately forwarded to the Alaska Workers' Compensation Benefits Guaranty Fund Loan/Collections officer.**

11. Employer will make payments according to the schedule above until the payable civil penalty is paid in full or until the business is sold or transferred pursuant to Stipulation Section XIV in this case. Employer will notify the Division of any pending sale or transfer at least 60 days prior to closing of the transaction. Employer will provide written evidence of buyer's intent to purchase including but not limited to an Earnest Money Agreement or other documentation of buyer's intent to the Division, and will provide for payment to the Division of any outstanding payable penalty balance at the time of closing in sale or transfer documents. **Upon any such sale or transfer, Employer will pay the remaining payable penalty balance in full within 10 days of closing of transaction.**

12. Employer shall notify the Division of any change in entity status including but not limited to dissolution of the entity or conversion to alternate entity status. Upon any dissolution of entity, Employer will pay the remaining penalty balance within 10 days of the date of dissolution as documented by the Alaska Division of Corporations, Business and Professional Licensing.

13. Employer will notify the Division of any changes to mailing and physical addresses, contact telephone numbers, and email addresses.

14. Employer shall maintain workers' compensation insurance coverage of any employees, in compliance with AS 23.30.075 and continue to file evidence of compliance in accord with AS 23.30.085.

15. Board approval of this stipulation and penalty assessed herein is conditioned upon Employer making timely, complete payment of the penalty as outlined above, Employer's continued compliance with AS 23.30.075, and Employer's cooperation with the Alaska Division of Workers' Compensation Benefit Guaranty Fund until the penalty is paid in full.

16. The entire unpaid penalty balance, including all amounts conditionally discounted and/or suspended, if any, shall become immediately due and owing if, during the penalty payment period, Employer fails to (a) make timely and complete payment as agreed herein, (b) comply with AS 23.30.075 or other provisions of the Act, (c) pay uninsured

compensable benefits, or (d) cooperate with the Alaska Division of Workers' Compensation Benefit Guaranty Fund with regard to penalty payments and payment of any uninsured injury claim.

17. Upon Board approval of this stipulation, the Alaska Workers' Compensation Division Special Investigations Unit shall send the original signed Confession of Judgment Without Action and a copy of the stipulation and Board order to the Alaska Workers' Compensation Division Loan/Collection Officer I in Juneau, Alaska.

18. Under AS 23.30.080(g) and pursuant to the signed Confession of Judgment Without Action, the Director of the Division of Workers' Compensation may declare Employer in Default.

19. If the Director declares Employer in default, a request for entry of judgment pursuant to AS 23.30.080(g), the signed Confession of Judgment Without Action, and a declaration of default, may be filed in superior court.

20. Upon Employer's full, timely, and complete compliance with payment of the payable civil penalty as set forth herein, Employer may petition the AWCB for an order of discharge of liability for the suspended and discounted amount of the assessed civil penalty.

21. The Board shall maintain jurisdiction of this matter under AS 23.30.135, and pending payment of civil penalties assessed under AS 23.30.080(f), in accord with this Decision and Order.

ENTERED BY DIRECTION OF THE BOARD.

DATED at Juneau, Alaska this 20th day of December, 20 17.

ALASKA WORKERS' COMPENSATION BOARD

/s/
Hearing Officer Kathryn Setzer

STATE OF ALASKA
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Workers' Compensation Special Investigations Unit
P.O. Box 115512 – 1111 West 8th Street, Room 305
Juneau, Alaska 99811
TELEPHONE (907) 465-5875 • FACSIMILE (907) 465-2797

CERTIFICATION

I hereby certify that the foregoing is a full, true and correct copy of the Stipulation of Undisputed Facts and Proposed Resolution and Order of The Board in the matter of The Petition of the Employer's Failure to Insure Workers' Compensation Liability and Assessment of Civil Penalty against Green Leaf, Inc., Case No. 700005792, dated and filed in the office of the Alaska Workers' Compensation Board in Juneau, Alaska, this 20th day of December, 20 17.

/s/
Certifying Clerk Dani Byers

CERTIFICATE OF SERVICE

The undersigned hereby certifies that on the 20th day of December, 2017, a true and correct copy of this document was mailed, First-Class U.S. Mail, postage prepaid, to the following:

Green Leaf, Inc.
David Price

/s/
By: Technician Dani Byers

STATE OF ALASKA
Department of Labor & Workforce Development
Workers' Compensation Special Investigations Unit
P.O. Box 115512 – 1111 West 8th Street, Room 305
Juneau, Alaska 99811
TELEPHONE (907) 465-5875 • FACSIMILE (907) 465-2797

Date Filed: 08/17/2018
State of Alaska, DCCED

THE STATE of ALASKA

20182010924 3

COR

FOR DIVISION USE ONLY

Department of Commerce, Community and Economic Development
Division of Corporations, Business and Professional Licensing

RECEIVED
Anchorage
AUG 17 2018
25
CBPL

Corporations Section
State Office Building, 333 Willoughby Avenue, 9th Floor
PO Box 110806, Juneau, AK 99811-0806
Phone: (907) 465-2550 · Fax: (907) 465-2974
Email: *corporations@alaska.gov*
Website: *Corporations.Alaska.Gov*

Notice of Change of Officials

Domestic Business Corporation (AS 10.06)

- This Notice of Change of Officials form is only for Domestic Business Corporations and is used to report changes between biennial reporting periods in: officers, directors, alien affiliates, and shareholders.
- This Notice of Change of Officials will not be filed if the entity's biennial report is not current. To verify the entity's biennial report due date, go online to www.Corporations.Alaska.Gov and select, *Search Corporations Database*
- Standard processing time for complete and correct filings submitted to this office is approximately 10-15 business days. All filings are reviewed in the date order they are received.
- The information you submit is a public record and will be posted on the State's website.

1. Important: AS 10.06.813

Each Domestic Business Corporation is required to notify this office when there is a change of officials.
— *AS 10.06.813*

Failure to meet this requirement may result in involuntary dissolution of the entity's authority to transact business in the State of Alaska.
— *AS 10.06.633(5)(7)*

The Domestic Business Corporation is to keep and make available the records of the official(s) changes.
— *AS 10.06.430*

2. Fee: ☑ $25 Nonrefundable Filing Fee (CORF) 3 AAC 16.030(b)

Mail this form and the non-refundable $25 filing fee in U.S. dollars to the letterhead address. Make the check or money order payable to the State of Alaska, or use the attached credit card payment form.

3. Entity Information: AS 10.06.813

Entity Name: Green Leaf, Inc.

Alaska Entity Number: 10036065

K2210580

Exhibit 4

4. REMOVE from Record: AS 10.06.813(b)

The following officials (officers, directors, shareholders, and alien affiliates) will be completely removed from the record as a result of this filing. If necessary, use the following SUPPLEMENT page.

RECEIVED
Anchorage
AUG 17 2018
CBP

Name: CONNOR NELSON Name:

Name: Name:

If an official is not being removed from record, then list them in Item #5 below (with their current information).

5. ALL Current Officials: AS 10.06.813(b) and AS 10.06.950

The following is a complete list of ALL remaining and new officials who will be on record as a result of this filing.

Domestic Business Corporations must have a President, Secretary, Treasurer, and at least one Director. The President and the Secretary cannot be the same person unless the President is 100% shareholder. The entity must also provide all shareholders who own 5% or more of the issued shares, and all alien affiliates.
— AS 10.06.453 and 10.06.483

List ALL officials and their current information to be on record.
BOLD fields are required.

FULL LEGAL NAME	COMPLETE MAILING ADDRESS	% Owned	Shareholder	PRESIDENT	Vice-President	SECRETARY	TREASURER	DIRECTOR	Assistant Secretary	Assistant Treasurer	Alien Affiliate
Aaron Bean	PO Box 464	100	x	x		x	x	x			
	Sitka, Alaska 99835										

→ If necessary, use the following SUPPLEMENT page.

6. Required Signature: AS 10.06.813(b) and AS 10.06.825

The Notice of Change of Officials must be signed by the President or Vice-President of the corporation. Persons who sign documents filed with the commissioner that are known to the person to be false in material respects are guilty of a class A misdemeanor.

Signature: Date: 8/15/18

Printed Name: Aaron D. Bean

Title of Authorized Signer: ☒ President — or — ☐ Vice-President

City and Borough of Sitka

100 Lincoln Street • Sitka, Alaska 99835

Coast Guard City, USA

May 24, 2018

1 of 2 To Aaron

Green Leaf, Inc.
Aaron Bean, CEO
PO Box 464
Sitka, AK 99835

RE: Notice of Alleged Violations of Restrictions or Conditions

Dear Mr. Bean,

As Chief Executive Officer for Greenleaf, Incorporated as applicant for the conditional use permits, the Planning and Community Development Department is contacting you regarding the following conditional use permits (CUP) issued to Green Leaf, Inc. and Connor and Valorie Nelson as owners of the land, pursuant to Article VII of Title 22 (Sitka General Code, Section 22,30.250 - attached)

- CUP 16-14 – Marijuana Cultivation at 4614 Halibut Point Road (HPR)
- CUP 16-31 – Marijuana Retail at 4612 HPR
- CUP 17-12 – Expansion of Marijuana Cultivation at 4614 HPR
- A copy of the conditions of approval for the above mentioned CUPs are attached

The Department has received complaints that the operations listed above are in violation of the conditional use permit conditions of approval, particularly those conditions pertaining to parking requirements, waste-water, and odor control as follows:

- May 15, 2018 complaint regarding parking at 4612 HPR
- May 17, 2018 complaint regarding odor at 4614 HPR
- May 21, 2018 complaint regarding odor at 4614 HPR
- In addition, there have been general complaints that waste-water is being released directly into the driveway instead of into the sewer system.

The attached conditions of approval give the specific language the permit holder(s) must comply with. Please note the following is only meant as a summary to assist you in meeting the conditions of approval:

- The applicant shall provide a parking plan that complies with Section 22.20.100 for all uses present and proposed at the current property including striped parking spaces where practical.
- Odor control shall include charcoal filters and other best means to limit and mitigate odor impacts to surrounding uses. Should a meritorious odor complaint be received the

Exhibit 5

Planning Commission may require additional odor control measures to mitigate any actual negative impacts.

- The Planning Commission or Planning Director may, at its discretion and upon receiving meritorious evidence of negative impacts to public, health, safety, and welfare, schedule a review to address issues of concern and pursue mitigation through additional conditions if necessary.
    - Waste-water shall be emptied into the sewer system and not deposited directly into the street or driveway

Please respond with a written response to these concerns within no less than ten (10) and no more than thirty (30) days, a report stating what measures have been taken, or are proposed to be taken, to correct or control the conditions outlined in the notice. Feel free to contact the Department at 747-1815 if you have questions.

Additionally, the Planning Director is requesting to inspect the operations and property on June 4th, 2018 at 3:00pm.

Thank you,

Michael Scarcelli, Director
Planning and Community Development Department

Attachments:

1. Planning Commission Minutes – May 17, 2016, November 16, 2016, and April 18, 2017
2. Sitka General Code 22.30.250
3. Parking Plan

CC: Connor and Valorie Nelson, Owners and CUP Holders
Paul and Lamoyne Smith
Keith Brady, Municipal Administrator
Brian Hanson, Municipal Attorney
Chair Spivey, Planning Commission

Brita Speck

From: Connor Nelson <keystone99835@yahoo.com>
Sent: Tuesday, September 11, 2018 1:57 PM
To: Brita Speck; Valorie Nelson
Subject: Fw: Settlement Agreement for "Green Leaf, Inc."

Connor Nelson
PO Box 2094
Sitka, AK 99835
Keystone Associates, Inc.

----- Forwarded Message -----
From: "Price, David J (DOL)" <david.price@alaska.gov>
To: Connor Nelson <keystone99835@yahoo.com>
Sent: Tuesday, September 11, 2018 12:50 PM
Subject: RE: Settlement Agreement for "Green Leaf, Inc."

Hello Mr. Nelson,

The most recent lapse occurred after this formal petition addressed the previous period of non-coverage. The most recent period occurred as a result of the policy non-renewing when it was supposed to and the lapse was from July 22, 2018 to July 28, 2018. Typically a policy should renew without a lapse, which means that the insurance carrier didn't receive the payment in a timely manner to renew the policy.

Hope this helps and good luck.

Best Regards,

Choose Respect

DAVID J. PRICE
INVESTIGATOR III
Alaska Division of Workers' Compensation
Special Investigations Unit
P.O. Box 115512
1111 W 8th Street, Room 305
Juneau, AK 99811-5512
Phone: (907) 465-5875 Fax: (907) 465-2797
david.price@alaska.gov

Exhibit 6

Douglas, Craig J (CED)

From: Barret Goodale <barret@goodalaska.com>
Sent: Friday, October 05, 2018 1:40 PM
To: Marijuana, CED ABC (CED sponsored)
Cc: Trevor Haynes; Greg Allison; Christian Hood; CED AMCO Enforcement (CED sponsored)
Subject: Public Comment Request

Hello,

I would appreciate the opportunity to speak during the public comment period of the next MCB meeting on Oct. 16th. My comments are in regards to the testing requirements for Aspergillus, the lack of pesticide regulations, current waste practices, and the impact of these regulations.

Thank you for your consideration,

C. Barret Goodale
GOOD Cultivation Manager
907-699-9478

Follow GOOD on Instagram, Twitter, and Facebook
Alaska Marijuana Industry Association member
National Cannabis Industry Association member

Douglas, Craig J (CED)

From: Ashley Peltier <Ashley.Peltier@lung.org>
Sent: Tuesday, October 02, 2018 2:02 PM
To: Marijuana, CED ABC (CED sponsored)
Subject: Ventilation Information

Can you please forward the following information to MCB member Ankerfelt? He requested information when we spoke briefly at the MCB meeting in Fairbanks.

Hi Paul,

It was nice to meet you at the MCB meeting in Fairbanks. Per your request, I'm passing along information related to ventilation (pertinent to on-site consumption). From one of our advocacy partners, Americans for Non-smokers Rights, there is no ventilation system that can remove the dangerous health effects of secondhand smoke (including marijuana).

ANR agrees with the concerns cited by ASHRAE and others about the need to protect workers from secondhand marijuana smoke exposure, and we want to highlight the following concerns.

- **Marijuana smoking and vaping should not be allowed inside workplaces,** including cannabis establishments that receive a permit for on-site consumption, even if ventilation systems are required. The concerns are:
- Ventilation and air purification systems are not a solution to secondhand smoke exposure. The American Society for Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE), the standard setting body for the HVAC industry, affirms that mechanical solutions like **ventilation and other air cleaning technologies cannot control for the health hazards of secondhand smoke.** ASHRAE bases its ventilation standard (62.1) for acceptable indoor air quality on an environment that is completely free from secondhand tobacco smoke, secondhand marijuana smoke, and emissions from electronic smoking devices.[i]

- Regulations that rely on ventilation to protect people from the health hazards of secondhand smoke do not adequately protect health, while giving employees and business owners the false impression that effective steps are being taken to address the health risk.

ANR strongly recommends that if cannabis establishments receive a permit for on-site consumption, that consumption does not include smoking or vaping in order to protect worker health. If it is determined that on-site consumption does permit smoking or vaping, than we recommend these businesses be required to be located in freestanding buildings and not in mixed-use buildings so that workers, residents, and patrons in attached businesses and residences are not exposed to secondhand smoke.

I'm happy to discuss this further or provide more information if needed. You can contact me at 907.891.7445 or ashley.peltier@lung.org.

Ashley

Ashley Peltier
Director | Health Promotions
American Lung Association in Alaska
1075 S Check St. Suite 105 | Wasilla, AK 99654
O: 907-891-7445
Lung HelpLine: 1-800-LUNGUSA
lung.org | ashley.peltier@lung.org

[i] ANSI/ASHRAE Standard 62.1-2013, Addenda 2015 - Ventilation for Acceptable Indoor Air Quality. American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc. https://ashrae.iwrapper.com/ViewOnline/Standard_62.1-2016