

Pruritus (the Itch) Screening Process & Treatment Protocol

Is the itch acute (time-limited), e.g., insect bite?

Yes

Consider **Topical CBD Protocol**

No

Has a chronic cause been identified as the source of the itch?

No

Yes

Is the itch associated with uremic pruritus, aka **chronic kidney disease (CKD)**?

Yes

Go to **Topical CBD Protocol**

No

Is the itch associated with secondary to **cholestatic liver disease (CLD)**?

No

Consider **systemic THC Protocol**

Yes

No clinical data is currently available for the use of cannabis-based drugs in the treatment of pruritus.

However, if the underlying pathologies of the itch include inflammation, psychological stress, and hemodialysis for example then additional data suggests degrees of efficacies for the use of modulators of the eCBome.

Go to **Modulators of the eCBome**

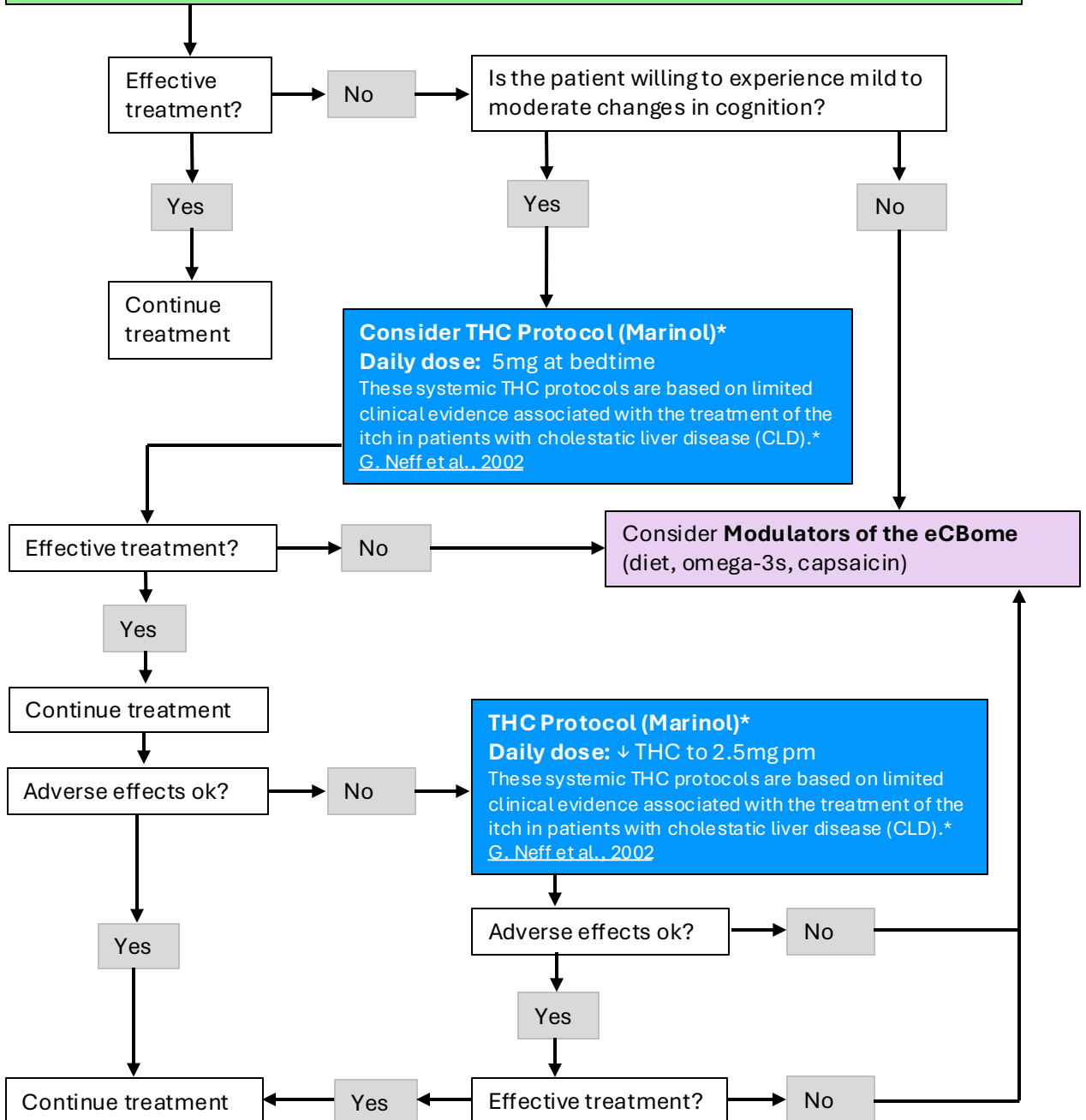
- Consider a visit to a dermatologist to identify potential chronic causes e.g. :
- Internal diseases
 - Liver
 - Kidney
 - Thyroid
 - Diabetes
 - Gallbladder
 - HIV/AIDS
 - ALS
 - Cancer
 - Anemia
 - Gout
 - Skin diseases
 - Atopic dermatitis
 - Psoriasis
 - Infections (e.g., viral, bacterial, parasitical, scabies, lice)
 - Shingles
 - Dry skin (xerosis)
 - Psychiatric causes
 - Menopause
 - Toxins
 - Nutritional deficiencies
 - Adverse effects of drugs
 - Trauma (e.g., burns)
 - Allergic reactions
 - Dialysis



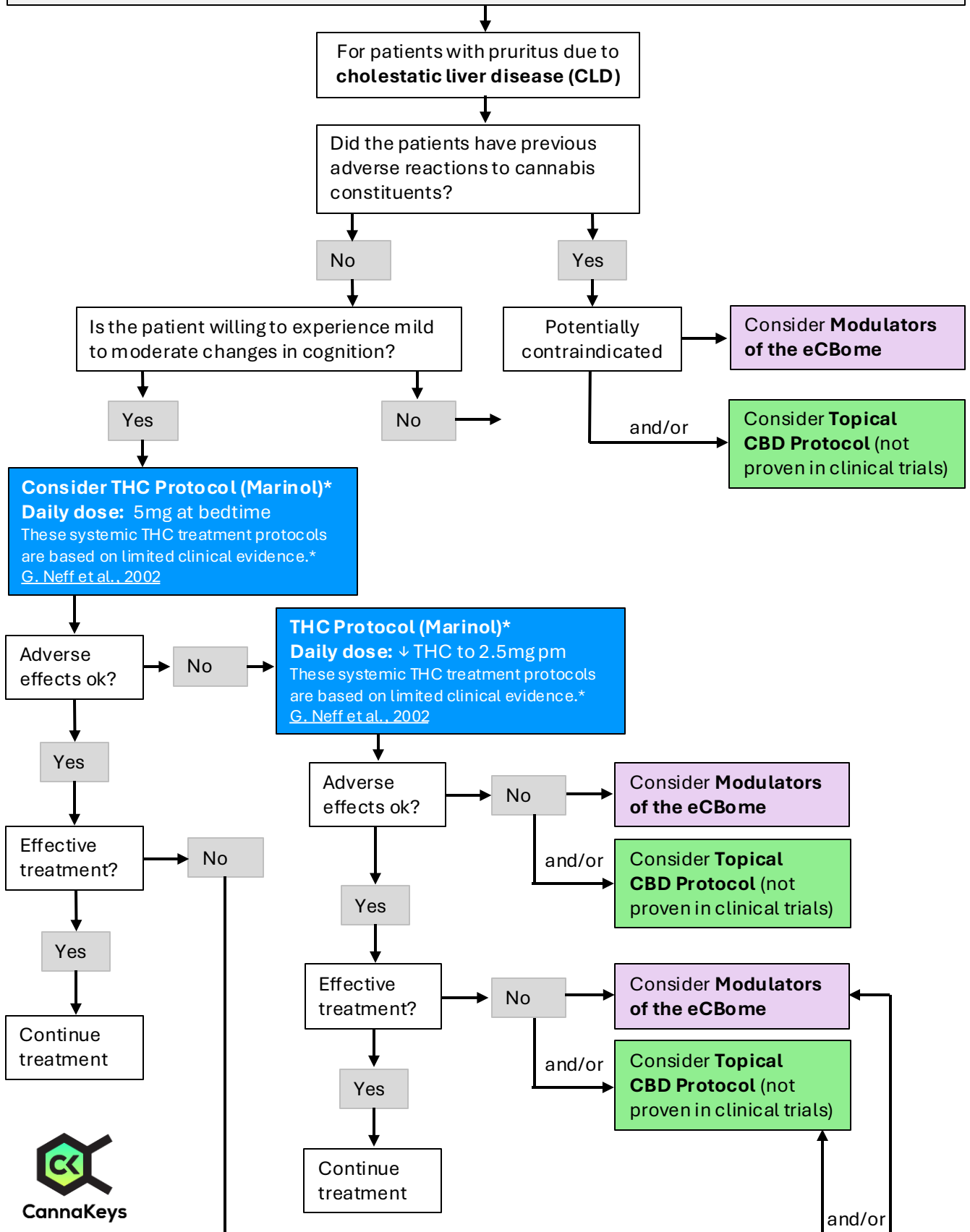
Pruritus (the Itch) Treatment Protocol

For patients diagnosed with
chronic kidney disease (CKD)

Topical Type III CBD Protocol: The study drug used contained 5% cannabis oil with CBD: THC at a ratio of 10: 1 or 1.27: 0.13mg/kg mixed with the cream base, totaling 100 g.
Starting dose: Twice am, pm; **Duration:** 4 weeks [S. Anumas et al., 2024](#)



Pruritus (the Itch) Treatment Protocol



Pruritus (the Itch)



Ensemble Effect and Modulators of the eCBome for the Itch

Other cannabinoids/acid forms

Minor cannabinoids that may reduce the itch of inflammation-based pathologies in the treatment context of atopic dermatitis, psoriasis, pruritus, and acne include **cannabigerol (CBG)**, **cannabichromene (CBC)**, **Δ9-tetrahydrocannabinol (THCV)** and **cannabigerolic acid (CBGA)** ([D. Tortolani et al., 2023](#)).

Terpenes

Borneol: Borneol has demonstrated therapeutic effects on multiple pruritus models in test animals and in humans with chronic itch, likely via antagonism TRPA1 and activating TRPM8 ([M. Luo et al., 2024](#)).

Lipidome

Omega-3: A double-blind placebo-controlled trial found that supplementation (3gm daily) significantly reduced the itch associated with hemodialysis ([A. Forouhari et al., 2022](#)). The results were confirmed by a review of clinical trials, which found that supplementation with Omega-3s was effective for uremic pruritus in the treatment context of palliative care ([C. Boelke et al., 2023](#)).

Nutraceuticals

FAAH inhibitors have been associated with decreased pruritus, an effect likely associated with increased bioavailability of anandamide (AEA) ([O. Yesilyurt et al., 2016](#)).

- **Biochanin A** is an FAAH inhibitor found in red clover, soy, and chickpea ([L. Thors et al., 2010](#)).
- **Kaempferol**, an FAAH, is found in numerous plants, including Brussels sprouts, citrus, apples, tea, saffron, rosemary, and raw capers ([H. Ahmad et al., 2020](#)).

Capsaicin: Topical applications of this active hot pepper constituent were effective for uremic pruritus in the treatment context of palliative care ([C. Boelke et al., 2023](#)).

Dietary considerations

Vegetarian Diet may mitigate the severity of the itch in hemodialysis patients ([C. Tseng et al., 2018](#)).

Mind-Body Medicine

Integrative Mindfulness: Stress can aggravate the itch via the skin-brain axis. Conversely, relaxation techniques, habit-reversal training, and cognitive behavioral therapies have been shown to help reduce pruritus ([C. Schut et al., 2015](#), [G. Yosipovitch et al., 2024](#)).

Exercise: Ninety

Microbiome

Recent research results suggest a complex interplay along the microbiota-skin-brain axis. More specifically, the microbiota's involvement in the underlying pathologies of itch via the epidermal barrier, the localized immune system, sensory nerves, and sensation processing portion of the brain, including the nociceptive amygdala ([H. S. Kim et al., 2020](#)). Additionally, data also suggest that the microbiome of the gut can help alleviate pruritus of varying origins.

Lactobacillus acidophilus worked to reduce the itch in an animal model of atopic dermatitis (AD) ([W. K. Kim et al., 2024](#)).

Bifidobacterium, **Lactiplantibacillus plantarum**, and **Lacticaseibacillus rhamnosus** as an oral product worked to significantly reduce pruritus in humans suffering from the itch associated with AD ([D. Colombo et al., 2023](#)).