

# Swissmedic Approval Options and Limits

Swiss Task Force for Cannabinoids in Medicine

Conference November 12, 2016

# Cannabis

Ordinance on the lists of narcotics, psychotropic substances, precursors and auxiliary chemicals 812.121.11

- Hemp plants (*Cannabis sativa* L. and its subspecies) or parts thereof, which have an average total THC content of at least 1.0 percent
- All items and preparations, which have a total THC content of at least 1.0 percent
- All items and preparations, which were made of hemp with a total THC content of at least 1.0 percent.

# Ordinance on the Control of Narcotics (BetmKV)

- Since July 1, 2011:
- Applications for marketing authorization for medicinal products containing preparations of *Cannabis* are possible.
- Before July 1, 2011, applications for synthetic THC (Dronabinol) were possible.
  
- In both cases:
- On top of all other requirements an operating permit for handling controlled substances is mandatory.

# Authorized phytotherapeutic product with “cannabis”

- Registered address/office in Switzerland
- Authorization holder for manufacturing, import or wholesale
- Product with proven quality, safety and efficacy
- Sativex Zul.-No.: 62644 since Nov 22, 2013
  - 1 mL contains 38-44 mg and 35-42 mg of two extracts from *Cannabis sativa* L. leaf and inflorescences corresponding to 27 mg/mL delta-9-tetrahydrocannabinol 25 mg/mL cannabidiol, respectively.
  - Oromucosal spray
  - Symptom improvement in adult patients with moderate to severe spasticity due to multiple sclerosis (MS) who have not responded adequately to other anti-spasticity medication and who demonstrate clinically significant improvement in spasticity related symptoms during an initial trial of therapy

# Exemptions from authorizations

- In accordance with Art. 8, 5 of the Federal Law on narcotic and psychotropic substances, Narcotics Act, SR 812,121
- For available extemporaneous mixtures (Magistralrezepturen):
  - Dronabinol solution (oil-based, for oral ingestion)
  - Cannabis tincture (ethanol-based, for oral ingestion)
  - Sativa oil
  - Cannabis oil
- For selected indications:
  - Spasticity (MS)
  - Chronic pain
  - Anorexia in HIV disease
  - Nausea, pain, loss of appetite in cancer patients

# Authorization as new API's

More than 80 different cannabinoids from Cannabis sativa are known

- **Tetrahydrocannabinol (THC) = Dronabinol**
- Cannabidiol (CBD)
- Cannabinol (CBN)
- Cannabichromene (CBC)
- Cannabigerol (CBG)
- Tetrahydrocannabivarin (THCv)
- Cannabidivarin (CBDv)
- ...

Proven quality, safety and efficacy is mandatory

# Federal Office of Public Health (FOPH)

Funded a study on cannabinoids for medical use

Results of the systematic review and meta-analysis

- Cannabis and cannabinoid drugs are widely used to treat disease or alleviate symptoms, but their efficacy for specific indications is not clear.
- There was moderate-quality evidence to support the use of cannabinoids for the treatment of chronic pain and spasticity. There was low-quality evidence suggesting that cannabinoids were associated with improvements in nausea and vomiting due to chemotherapy, weight gain in HIV infection, sleep disorders, and Tourette syndrome. Cannabinoids were associated with an increased risk of short-term AEs.

# Application as herbal medicinal product

- Cannabis is known for its medicinal properties since pharaonic times\*
  - administered by mouth, rectum, vagina, bandaged to the skin, applied to the eyes and by fumigation
- Hildegard von Bingen. *Physica*\*\*
  - Hemp is hot, and it grows when the air is neither very hot nor very cold, and its nature is similar. Its seed is salubrious, and good as food for healthy people. It is gentle and profitable to the stomach, taking away a bit of its mucus. It is easy to digest, diminishes bad humors, and fortifies good humors. Nevertheless, if one who is weak in the head, and has a vacant brain, eats hemp, it easily afflicts his head. It does not harm one who has a healthy head and full brain. If one is very ill, it even afflicts his stomach a bit. Eating it does not hurt one who is moderately ill.

\* Nunn JF. Ancient Egyptian medicine. London: British Museum; 1997. p 156; \*\* Throop, p.. Hildegard von Bingen's *Physica*. The complete English translation of her classic work on health and healing. Rochester, Vermont, USA: Healing Arts Press; 1998. p. 14-5



# *Cannabis* in pharmacopoeias

- Argentina 1898, 1921, 1943, 1956
- Austria 1855, 1896, 1889, 1906
- Belgium 1885, 1906, 1931
- Brazil 1929
- Chile 1888, 1905
- Croatia 1888, 1901
- Denmark 1772 – 1893 and 1933
- Finland 1885, 1914, 1937
- France 1866, 1884, 1908, 1937, 1949
- Great Britain 1864, 1867, 1885, 1898, 1914
- Greece 1868, 1899, 1909
- Germany 1872, 1882
- Hungary 1871, 1888, 1909
- India 1955
- Italy 1902, 1909, 1920
- Japan 1886, 1891, 1907, 1922
- Mexico 1874, 1884, 1896, 1904, 1925, 1952
- Netherlands 1889, 1905, 1926
- Poland 1817, 1937
- Portugal 1876, 1936
- Romania 1926
- Serbia 1881, 1906
- Spain 1884, 1905, 1930, 1954
- Sweden 1869
- Switzerland 1876, 1893, 1907, 1934, 1954
- Turkey 1930
- United States 1851, 1863, 1873, 1882, 1905, 1916, 1926, 1936
- USSR 1866, 1871, 1880, 1891, 1902, 1910, 1925
- Venezuela 1898, 1920, 1927, 1939, 1942
- Yugoslavia 1934

# Application as herbal medicinal product

- Trials on therapeutic efficacy and safety may be replaced by bibliographical documentation

## Challenge

- Importance of Cannabis faded because of unreliable effects and efficacy
- Cannabis was substituted by newer, more effective medicines such as
  - Analgesics
  - Antibiotics
  - Immunization
  - Sleep aids

# Classification of herbal substances and preparations as medicinal products or as food

## Hemp leaves

- Classified as spices, herbs, teas, additives, flavorings

## Hemp seeds

- Classified as fruits, vegetables, nuts, seeds

# Hemp as food

Produced from

- Hemp plants (*Cannabis sativa* L. and its subspecies) or parts thereof, which have an average total THC content **of less than 1.0** percent

Must comply with Ordinance on foreign substances and components in foodstuffs 817.021.23

- Delta 9-Tetrahydrocannabinol (THC) is considered contaminant with defined maximum levels between 0.2 and 20 ppm in food preparations.