

# Cannabis and cannabis-based medicines

Potential benefits and risks to health

Report of a Working Party 2005



**Royal College  
of Physicians**

Setting higher medical standards

# Executive summary

- 1 It is important to distinguish between the recreational use of cannabis and its potential as a medicine. This report is concerned with the potential benefits and risks to health from the use of cannabis and cannabis-based drugs as medicines, rather than with the moral or legal status of cannabis.
- 2 The two recognised medical indications for  $\Delta^9$ -tetrahydrocannabinol (THC), the main psychoactive ingredient of cannabis, are the treatment of sickness associated with cancer chemotherapy and to counteract the loss of appetite and the wasting syndrome of AIDS. There is scientific evidence to support further studies of the use of THC in multiple sclerosis (for the treatment of pain and spasticity, and to explore its effect on the progression of the disease) and in the management of other causes of treatment-resistant pain. Further carefully controlled clinical studies are needed and should include quality-of-life based assessments in addition to objective measures of effect.
- 3 The safety profile of THC as a compound is good insofar as high doses are rarely, if ever, lethal. However, there is a narrow dosing window between the desired and undesired effects, which varies between individuals, in part depending upon previous exposure to the drug. Recognised undesired effects include unpleasant psychic reactions, intoxication and temporary impairments of skilled motor and cognitive functions. The practice of allowing patients to self-titrate their dose against symptoms can help to circumvent this problem and does not result in escalating doses.
- 4 The possibility that cannabis may increase the risk and/or severity of psychosis remains a significant concern. Epidemiological studies show that there is an association between regular cannabis use in adolescence and psychosis or psychotic symptoms. On this basis, adolescence and a history of psychosis should be relative contraindications to the use of cannabis-based medicines; their use in these patient categories would require careful clinical judgement and surveillance. Cannabis-based medicines should be avoided in pregnancy.
- 5 The safety of smoking cannabis is questionable, given that the smoke contains many of the substances of concern found in tobacco smoke. So although the lungs are an excellent site for absorbing THC, smoking cannabis to deliver THC is strongly discouraged. Clinical trials to address the therapeutic value of THC should continue to be based on oral ingestion or alternative drug delivery systems.
- 6 The endocannabinoid system is currently the subject of considerable research interest. Novel compounds that act on cannabinoid receptors are being investigated. In some cases, the objective is to produce a particular desirable effect of THC with greater acceptability by targeting a specific cannabinoid receptor subtype or enhancing the effect of endogenous cannabinoids. In other cases, the aim is to block the effect of endogenous cannabinoids.

This research has the potential to develop novel medicines for a variety of medical conditions and should be welcomed.

- 7 The possibility that additional cannabinoid receptors may exist and the possible clinical utility of cannabidiol, another non-psychoactive naturally occurring cannabinoid, also merit further exploration.