

## Discuss the ethics of treating patients with smoking and alcohol-related disease

*'You must not refuse or delay treatment because you believe that a patient's actions or lifestyle have contributed to their condition'*<sup>1</sup>

The duties of a doctor registered with the GMC

The fundamental values of non-prejudice and non-judgment are instilled early in a doctor's career. Although it is a doctor's duty to treat all patients equally, regardless of whether their illness is perceived to be self-inflicted, rationales behind such morals within clinical practice are being increasingly challenged. National Health Service (NHS) trusts are already starting to impose restrictions on certain treatments for smokers and those that regularly consume alcohol.<sup>2</sup> Justifications behind these measures include encouraging the patient to take more responsibility for their health, prioritizing resources and the reduced success rates of the intervention. For example, in 2017, Hertfordshire NHS Clinical Commissioning Group decided to ban patients from surgery unless they stopped smoking.<sup>3</sup> Smokers would only be referred for surgery if they stopped smoking at least 8 weeks before, as verified by breathalyzers before referral. This demonstrates how the NHS has already started taking controversial steps towards refusing treatment of self-inflicted diseases unless behavior is changed.

Smoking and excessive alcohol use are linked to an increased risk of a wide range of illnesses at considerable additional cost to the health services. Beyond well-reported cardiopulmonary consequences such as chronic obstructive pulmonary disease (COPD), lung cancers and heart disease, smokers are also at an increased risk of developing other conditions including ectopic pregnancies and erectile dysfunction.<sup>4</sup> Excessive alcohol consumption can have widespread pathological effects on the body and is linked to diseases such as anaemia, cancers, heart disease, dementia, depression and pancreatitis. It also increases susceptibility to infectious diseases such as pneumonia and tuberculosis, because it weakens the immune system.<sup>5</sup>

According to the Action on Smoking and Health group, the treatment of smoking related diseases costs the NHS about £2 billion per annum.<sup>6</sup> Additionally, collecting cigarette butts and extinguishing smoking-related house fires costs up to £1 billion. The cost of healthcare for drinking related diseases is about £4.6 billion, making the total sum for treating smoking and alcohol related diseases about £8 billion.<sup>7</sup> The loss of work from smoking related illness results in a significant loss of productivity and tax revenue, which must also be accounted for when studying the economic consequences to public health services.

Some believe that this money could be put to better use by being diverted to other treatments such as immunotherapies for various cancers, which can currently cost upwards of \$100,000 per patient per year.<sup>8</sup> Over the last five years, the National Institute of Health and Care Excellence (NICE), deemed 49% of new cancer treatments as being non-cost effective for use in the NHS, a figure which has risen three-fold since 2005, when only 15% were rejected.<sup>9</sup> Innovative and effective drugs such as Dinutuximab Beta (a treatment for high-risk neuroblastoma) and Spinraza (spinal muscular atrophy treatment which is already used in America and 22 European countries) could be made available on the cash-strapped

NHS if savings were made by not treating smoking and alcohol related disease, as could Yescarta, for the treatment of aggressive subtypes of Non-Hodgkins lymphoma.<sup>10</sup>

Conversely, it could be argued that individuals suffering from smoking and alcohol-related diseases should not be denied treatment because they are simply victims of an altogether different disease with a harsh prognosis- addiction. To understand the logic behind this argument, we need to look at the science behind addiction. The National Institute of Drug Abuse (NIDA) defines addiction as a 'chronic, relapsing brain disease that is characterized by compulsive drug seeking and use, despite harmful consequences.'<sup>11</sup> Cigarettes and alcohol both contain addictive substances. An addiction alters brain neurobiology and affects dopaminergic pathways within the brain. The substances trigger dopamine-release spikes and over time, the brain responds by reducing its natural, basal level of dopamine production, demonstrating how the cycle of addiction begins. In an addicted state, an individual no longer uses drugs to feel good, but merely to feel normal. Alcohol inhibits glutamate and stimulates GABA, causing a calming effect. Prolonged alcohol use makes GABA- $\alpha$ -receptors less sensitive to activation, leading to the characteristic withdrawal symptoms.<sup>12</sup> Similar to nicotine, alcohol also stimulates beta-endorphins, causing feelings of euphoria and increasing dopamine release from the nucleus accumbens. Quitting smoking is very difficult, with nicotine being reported as being the third most addictive substance after heroin and crack cocaine.<sup>13</sup> This demonstrates how difficult it is for those addicted to nicotine or alcohol to stop and questions the appropriateness of being penalised for having an addiction which is not in their control.

Research has shown that most individuals start smoking and become addicted to nicotine before reaching adulthood, with the largest proportion reportedly starting in adolescence before the age of 24 years.<sup>14</sup> Children who start smoking earlier are more likely to smoke heavily and become addicted, and are at a higher risk of developing smoking related diseases.<sup>15</sup> Since these addictions develop before reaching emotional maturity, can these individuals really be held accountable? More significantly, scientific research has revealed that individuals can have genetic predispositions to developing addictive tendencies, with one study suggesting this contributes to 50-70% of the risk. Therefore, withholding treatment would be penalising individuals for their genetic makeup.

Aside from genetics, there are many environmental factors which contribute towards individuals starting smoking. Adolescents are three times more likely to smoke if their parents or siblings smoke.<sup>16</sup> The reasons why individuals begin smoking include family attitudes to smoking, peer pressure, socio-demographic factors and mental health problems. If individuals begin smoking and struggle to quit for the various reasons outlined above, should they be seen as not taking responsibility for their health and denied treatment that might improve their quality of life? The fact is that today, a large proportion of the population smokes (1 in 5 adults in the UK) and/or drinks alcohol (a survey showed that 58% of adults drank alcohol in a week), so a decision to not treat smoking and alcohol-related disease would impact a large proportion of the population.<sup>17</sup>

Punishing individuals for certain lifestyle choices by denying them medical treatment for illnesses perceived to be self-inflicted opens a path to a slippery slope. As this link is often not fully or directly causal, it is difficult to determine to what extent a disease would be

considered self-inflicted in a given individual. In 2011, the World Health Organization found that lifestyle-related diseases were the leading cause of death worldwide, killing 36 million people per year.<sup>18</sup> These non-communicable diseases are driven by a range of behaviours, such as poor diet, smoking, lack of exercise, alcohol and drugs. With the vast range of lifestyle-related diseases, if smokers and alcohol users are targeted, how long before other lifestyle choices follow suit- such as prolonged sun exposure causing skin cancers, extreme sports resulting in injuries, and unhealthy lifestyle leading to heart disease and hypertension.

Although the treatment of smoking and alcohol related disease is costly for the NHS, some economists have suggested that premature mortality in smokers in the UK saves the government £9.8 billion annually in pension, healthcare and other benefit payments. They indicate that duty on alcohol brings in £10.7 billion annually, meaning that excessive alcohol consumption saves the government £6.1 billion per year.<sup>19</sup> This highlights that regular smokers and alcohol users are already contributing financially to their increased use of healthcare services.

To conclude, the treatment of individuals with smoking and alcohol related diseases should be governed by clinical need with consideration given to the patient's lifestyle only if it is likely to significantly impact the outcome of treatment. We risk losing trust in health services and the doctor-patient relationship if the principle of beneficence in biomedical ethics is applied inconsistently- positive steps should always be taken to help all patients.

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