

## Supplementary Online Content

Wu HH, Chen JY: The clinical benefits of aromatherapy in hospitalized patients with acute exacerbation of chronic obstructive pulmonary disease. E-Da Med J 2024;11:1-8. doi:10.6966/EDMJ.202406\_11(2).0001

**eTable 1.** The five essential oils introduction.

This supplementary material has been provided by the authors to give readers additional information about their work.

*eTable 1. The five essential oils introduction.*

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- 1 True cardamom (*Elettaria cardamomum [L.]*) has a rich scent that makes it the best essential oil for alleviating spasms and inflammation. In clinical practice, it is used as an expectorant, decongestant, antioxidant, and to relieve coughs, and it helps treat respiratory tract infections, bronchoconstriction, and inflammation. It also has anxiety- and stress-relieving properties.<sup>10,11</sup>

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  - 2 Frankincense (*Boswellia sacra*) contains pinene, which promotes blood circulation, reduces inflammation, and relieves pain. In clinical practice, it has anti-inflammatory, antiviral, antibacterial, antifungal, and antioxidant properties that aid in reducing anxiety and depression caused by respiratory symptoms such as bronchitis, asthmatic bronchitis, and asthma.<sup>9,10</sup>

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  - 3 True lavender (*Lavandula angustifolia*) contains aromatic chemical components that attenuate various neurotransmitters. It is clinically used as a painkiller and analgesic and has anti-inflammatory, antimicrobial, and anti-anxiety effects. It effectively stimulates the immune system and cell regeneration. Its psychological benefits include easing anxiety and its physical manifestations and reducing nervousness, insomnia, and sleep disorders.<sup>8,9</sup>

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  - 4 Lemon (*Citrus limon*) essential oil is clinically proven to have antimicrobial and antibacterial properties and is used in air purification and as a cold remedy.<sup>13</sup> Lemon can inhibit the growth of *Streptococcus* bacteria, spore-forming bacteria, and drug-resistant *Acinetobacter*; fight inflammation and oxidation; enhance cognitive abilities; activate and energize mood; and reduce depression to promote a clearer and calmer state of mind.<sup>8,9</sup>

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  - 5 Sweet marjoram (*Origanum majorana*) has a warm and herbaceous scent that attenuates patients' hyperactivity. It effectively reduces circulatory, cardiac, and sleep disorders caused by the autonomic nervous system.<sup>8</sup> It is used clinically to relieve pain, inflammation, reduce anxiety, and spasms. It relaxes the smooth muscles. It acts as a bronchodilator, vasodilator, and antihistamine.<sup>8,9</sup>
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