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Background

204 The Maudsley® Prescribing Guidelines in Psychiatry CHAPTER 1 Pneumonia Background A 2018 meta-analysis of 14 observational studies (n = 206,899) reported that antipsychotic use was associated with a near doubling of pneumonia incidence compared with no use.1 This same analysis found no difference in incidence of pneumonia between FGAs and SGAs and no increase in fatality rate. A later analysis of spontaneous reporting to the US FDA uncovered relatively greater incidence of pneumonia in people prescribed clozapine, olanzapine and antipsychotic polypharmacy (compared with haloperidol).2 In 2024, a 20-year observational study (n = 61,889) in Finland found increased risk of hospitalisation with pneumonia in people prescribed antipsychotic monotherapy compared with no antipsychotic use.3 There is some dispute over the causal association between antipsychotic use and risk of pneumonia. One study looked at the incidence of pneumonia in over 8,000 people before and after starting various antipsychotics and found no change overall (or for any individual antipsychotic).4 Another analysis, a case–control study, found that duration of antipsychotic use was just one of three factors linked to increased risk of pneumonia (the others being severity of illness and comorbidity index).5 Schizophrenia itself seems to afford a higher risk of complications (e.g. admission to intensive care) in people diagnosed with pneumonia,6 although neither diagnosis nor age appears to modify the effect of antipsychotic use on pneumonia.7 Risk of antipsychotic-associated pneumonia is increased in patients with Alzheimer’s disease and those without.8 Factors associated with antipsychotic--induced pneumonia are listed in Table 1.47. The risk of pneumonia seems to be most pronounced in people prescribed antipsychotics with high anticholinergic effects (notably clozapine and high-dose olanzapine or quetiapine) and is probably dose dependent.3,9 Among antipsychotics, clozapine is most often associated with pneumonia, with an estimated incidence of up to 30%16 (although TRS itself increases risk of pneumonia by two-thirds).18 In two studies, clozapine re--exposure was associated with a greater risk for recurrent pneumonia than the risk of baseline pneumonia with initial clozapine treatment.16,19 Aripiprazole (and probably other Table 1.47 Factors associated with antipsychotic-induced pneumonia. Treatment factors ■ ■Antipsychotics with high anticholinergic effects (e.g. clozapine and olanzapine)3,9 ■ ■High antipsychotic doses10 ■ ■Antipsychotic polypharmacy*11–13 ■ ■Concomitant benzodiazepines14,15 ■ ■Concomitant mood stabilisers** Patient factors ■ ■Decreased CYP2C19 and CYP1A2 activity16 ■ ■Smoking17 ■ ■Obesity17 ■ ■Diagnosis of schizophrenia (especially TRS)17 * Not found in one study.3 ** Lithium seems to have a protective effect.

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