

Treatment transitions in chronic obstructive pulmonary disease: retrospective analyses of US and UK healthcare databases

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Supplementary Table 1. Censoring reasons for patients not initiating 2MT in the US and UK

| Censoring reason, N (%) | US N=46,445 | UK N=6,325 |
|--|------------------------|-----------------------|
| End of study period | 25,881 (55.7) | 5,232 (82.7) |
| End of continuous enrollment | 17,115 (36.9) | 286 (4.5) |
| Death | – | 488 (7.7) |
| Asthma diagnosis during follow-up period | 3,342 (7.2) | 263 (4.2) |
| Unknown | 107 (0.2) | 56 (0.9) |

End of study period: patients lost to follow-up due to reaching the last day of the study period (31 March 2018 for US MarketScan® and 31 December 2018 for UK CPRD).

End of continuous enrolment: patients stop their enrolment in health plan (US) or CPRD database (UK) (patients censored at first disenrollment, regardless of subsequent re-enrolment).

The US MarketScan® database did not record data related to death.

Unknown: patients who did not initiate 2MT; however, the reason is unknown.

Supplementary Table 2. Diagnosis codes used in the US and UK

| Diagnosis | ICD codes (US) | Read codes (UK) |
|-----------------------------------|---|--|
| COPD | ICD-9-CM codes 491*, 492*, and 496*, and ICD-10-CM codes J41*, J43*, and J44* | H3...00, H3...11, H30..00, H30..11, H30..12, H300.00, H301.00, H302.00, H30z.00, H31..00, H310.00, H310000, H310100, H310z00, H311.00, H311000, H311100, H311z00, H312.00, H312000, H312011, H312100, H312200, H312300, H312z00, H313.00, H31y.00, H31y000, H31y100, H31yz00, H31z.00, H32..00, H320.00, H320000, H320100, H320200, H320300, H320311, H320z00, H321.00, H322.00, H32y.00, H32y000, H32y100, H32y111, H32y200, H32yz00, H32yz11, H32z.00, H36..00, H37..00, H38..00, H39..00, H3A..00, H3B..00, H3y..00, H3y..11, H3y0.00, H3y1.00, H3z..00, H3z..11, 14B3.12, Hyu3100, 66Ye.00, 66Yi.00, 8H2R.00 |
| Acute COPD exacerbation* | ICD9 491.21, 494.1; ICD-10 J44.0, J44.1 | H312200, 8BP8.00, H3y1.00, H590.00, H59..00, R2y1.00, R2y1z00 |
| Lower respiratory tract infection | ICD-9 466; ICD-10 J20.9, J21.0, J21.8, J22 | H060.00, H060.11, H060300, H060500, H060w00, H060x00, H060z00, H062.00, H06z000, H06z011, H06z100, H06z112, H20..11, H20y.00, H20z.00, H22..00, H22..11, H22y.00, H22yz00, H22z.00, H23..11, H24..00, H24y.00, H24yz00, H24z.00, H25..00, H25..11, H26..00, H26..11, H260.00, H261.00, H2B..00, H2z..00, H30..11, H300.00, H301.00, H30z.00, H3y0.00, H540000, H540100, Hyu0800, Hyu0A00, Hyu0B00, Hyu0H00, Hyu1.00 |
| Pneumonia | <p>ICD-9 003.22, 020.3, 020.4, 020.5, 021.2, 022.1, 031.0, 039.1, 052.1, 055.1, 073.0, 083.0, 112.4, 114.0, 114.4, 114.5, 115.05, 115.15, 115.95, 130.4, 136.3, 480.0, 480.1, 480.2, 480.3, 480.8, 480.9, 481, 482, 482.0, 482.1, 482.2, 482.3, 482.30, 482.31, 482.32, 482.39, 482.4, 482.40, 482.41, 482.42, 482.49, 482.8, 482.81, 482.82, 482.83, 482.84, 482.89, 482.9, 483, 483.0, 483.1, 483.8, 484, 484.1, 484.3, 484.5, 484.6, 484.7, 484.8, 485, 486, 487, 487.0, 487.1, 487.8, 517.1</p> <p>ICD-10 A01.03, A02.22, A20.2, A21.2, A22.1, A31.0, A37.01, A37.11, A37.91, A43.0, A49.2, B01.2, B05.2, B06.81, B25.0, B37.1, B38.0, B38.1, B38.2, B39.0, B39.1, B39.2, B44.0, B58.3, B59, B77.81, J09, J09.X, J09.X1, J09.X2, J09.X9, J10,</p> | <p>AB24.11, H2...00, H200.00, H201.00, H202.00, H203.00, H220.00, H221.00, H222.00, H222.11, H223.00, H223000, H224.00, H22y.00, H22y000, H22y100, H22y200, H22yX00, H22yz00, H23..00, H230.00, H231.00, H232.00, H23z.00, H24..00, H240.00, H241.00, H242.00, H243.00, H243.11, H244.00, H246.00, H247.00, H247000, H247100, H247z00, H24y.00, H24y000, H24y100, H24y200, H24y300, H24y400, H24y500, H24y600, H24y700, H24yz00, H24z.00, H26..00, H2z..00, 14B2.00, 43eG.00, 43eH.00, 43n1.00, 43n7.00, 4JRC.00, 4JUK.00, A022200, A116.00, A380300, A3BXA00, A3BXB00, A3By400, A3C0300, A54x400, A551.00, A730.00, A789300, A789311, AB40500, AB41500, AyuK900, AyuKA00, F00y400, H060A00, H20..00, H20..11, H20y.00, H20z.00, H21..00, H21..11, H22..00, H22..11, H22y011, H22z.00, H23..11, H233.00, H25..00, H25..11, H260.00, H261.00, H262.00, H270.00, H270.11, H270000, H270100, H270z00, H28..00, H2B..00, H2C..00, H2y..00,</p> |

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| | J10.0, J10.00, J10.01, J10.08, J10.1, J10.8, J10.89, J11, J11.0, J11.00, J11.08, J11.8, J11.89, J12.0, J12.1, J12.2, J12.3, J12.81, J12.89, J12.9, J13, J14, J15.0, J15.1, J15.20, J15.211, J15.212, J15.29, J15.3, J15.4, J15.5, J15.6, J15.7, J15.8, J15.9, J16.0, J16.8, J17, J18.0, J18.1, J18.8, J18.9 | H470.11, H470312, H471000, H530200, H530300, H540000, H540100, H564.00, H564.11, H56y000, H56y100, H571.00, Hyu0800, Hyu0A00, Hyu0B00, Hyu0C00, Hyu0D00, Hyu0G00, Hyu0H00, Q310.00, Q310000, Q310100, Q310200, Q310300, Q310400, Q310500, Q310600, Q310y00, Q310z00, SP13100 |
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*UK codes include respiratory failure.

COPD, chronic obstructive pulmonary disease; ICD, International Classification of Diseases and Related Health Problems.