

Appendix 1 (Read Codes to Define Outcome)

Asthma exacerbation

Xa1hD","Xafdy","Xafdz","Xafdj","XE0YW","XM0s2","X101y","X1022","H333.","H3301","H3311","H33z0","H33z1

Asthma hospitalization or Accident & Emergency visit

"663d".,"8H2P." ,"663m."

Oral corticosteroids

"fe6..","fe3..","fe31." ,"fe32." ,"fe33." ,"fe36." ,"fe37." ,"fe3A." ,"fe3B." ,"fe3C." ,"fe3r." ,"fe3s." ,"fe3u." ,"fe4..","fe41." ,"fe42." ,"fe43." ,"fe44." ,"fe45." ,"fe4e." ,"fe4f." ,"fe4g." ,"fe4h." ,"fe5..","fe51." ,"fe52." ,"fe53." ,"fe5f." ,"fe5m." ,"fe5n." ,"fe5o." ,"fe5p." ,"fe61." ,"fe62." ,"fe64." ,"fe65." ,"fe66." ,"fe67." ,"fe68." ,"fe69." ,"fe6a." ,"fe6c." ,"fe6d." ,"fe6e." ,"fe6f." ,"fe6g." ,"fe6h." ,"fe6i." ,"fe6j." ,"fe6k." ,"fe6l." ,"fe6m." ,"fe6n." ,"fe6o." ,"fe6p." ,"fe6q." ,"fe6r." ,"fe6s." ,"fe6t." ,"fe6v." ,"fe6w." ,"fe6z." ,"fe7..","fe71." ,"fe72." ,"fe73." ,"fe74." ,"fe75." ,"fe76." ,"fe77." ,"fe78." ,"fe79." ,"fe7x." ,"fe7y." ,"fe7z." ,"x00yP","x01Mh","x01Na","x01Nb","fe11." ,"fe12." ,"fe1x." ,"fe1y." ,"fe21." ,"fe22." ,"fe23." ,"fe24." ,"fe25." ,"fe26." ,"x01MW"

Evidence of lower respiratory review

"XE1P1","XE2Nb","XE2b5","XM0rv","XM0s2","XM1Bs","XM1QV","XM1QX","XSCET","Xa0Y7","Xa0IY","Xa0IZ","Xa1hD","Xa35I","Xa7nL","Xa7nM","Xa7nN","Xa7nP","Xa7nT","Xa7nU","Xa8Hn","Xa9Z7","Xa9zF","XaBE9","XaBM8","XaBfJ","XaDcD","XaDcV","XaDsa","XaDtB","XaDtP","XaDth","XaDtI","XaDvK","XaDvL","XaEFy","XaEFz","XaEIV","XaEIV","XaEIV","XaF6d","XaF6e","XaFrU","XaFrV","XaFrW","XaFrX","XaIW","XaIX","XaIY","XaIZ","XaIND","XaINZ","XaINa","XaINb","XaINc","XaINd","XaINf","XaINg","XaINh","XaIQ2","XaIQ3","XaIQ4","XaIQD","XaIQE","XaIQg","XaIR3","XaIU","XaIU","XaIUm","XaIUn","XaIUo","XaIeq","Xaler","Xalet","Xalfk","XaloE","Xalu5","Xalu6","XaluG","Xalww","XalxQ","XalxR","XalxU","XalxV","XaJ3K","XaJ9B","XaJ9C","XaJ9D","XaJ9E","XaJEl","XaJFG","XaKdk","XaLIm","XaLin","XaLlr","XaLJO","XaLJS","XaLJT","XaLJU","XaLPE","XaMeu","XaN4a","XaNKw","XaObi","XaObj","XaObk","XaObl","XaObm","XaPpl","XaQHq","XaQig","XaQih","XaQmR","XaQmS","XaQmT","XaQmU","XaREU","XaRFi","XaRFj","XaRFk","XaRFI","XaVx3","XaX3n","XaXCa","XaXCb","XaXZm","XaXZp","XaXZs","XaXZu","XaXZx","XaXa0","XaXeg","XaY2V","XaYyt","XaYyu","XaYZB","XaYZh","XaYb8","XaYby","XaYja","XaYmL","XaYpC","XaYpF","XaZ1k","XaZ1l","XaZd1","XaZyl","XaZyt","XaZyu","XaZz1","Xaa7B","Xaa7C","Xaa7Q","Xaafd","XaahD","Xab2f","Xab4X","ZV19L","ZV725","ZV74B","ZV7B3","c74.."

Additional non-asthma specific codes for hospitalisation

"8HJJ.00","9b8D.00","8HX..00","8HX2.00","8Hd..00","8H16.00","8H2R.00","8H29.00","8H2D.00","8H2J.00","8H24.00","8H26.00","8H2H.00","8H2Z.00","8H21.00","8H2E.00","8H2N.00","8H27.00","8H2B.00","8H2K.00","8H28.00","8H25.00","8H2I.00","8H23.00","8H2L.00","8H2G.00","8H2M.00","8H2C.00","8H22.00","8H1..11","8H15.00","8H1Z.00","8H1..00","8H14.00","8H13.00","8H12.00","8H2A.00","8H2F.00","SP31100","663m.00","66Yd.00","9b8B.00","9498","8HG..11","9451","L398400","8HG..00","ZLD2G11","ZLD2100","ZLD2H11","ZLD2H00","ZLD2111","ZLD2G00","ZLD2I11","ZLD2100","ZLE1.00","ZLE5111","ZLE5100","ZLE1.11","ZLF2.00","ZLE5.00","ZLE5200","ZLG6.00","ZLG6100","ZLG6400","ZLG6500","8HE8.00","8HE..00","8HE2.00","8HN..00","7A10000","7A15000","7A12000","7A41400","7A47800","7A47200","7A47000","7A47600","7A47400","7A47C00","7A41000","7A41200","7A15300","7A41600","7A47B00","7A47300","7A47700","7A47100","7A47D00","8H23000","7A11000","7A11200","7A45300","7A13400","7A13000","7A45200","7A45000","7A40000","7A13300","7A45700","7A45D00","7A13100","66Ye.00","8H2P.00","7700.11","7700300","663d.00","7F13300","7700100","7700000","7700","7700z00","7700200","7A41211","8H2..00","8712","7M30000","7A13.

11","7A45.15","7A45.00","7A45.14","7A13.00","7A13z00","7A13y00","8H2T.00","7700400","9239",
 "9b0K.00","945Z.00","945..00","13F8.11","9b0L.00","13F8.00","9R6..00","7936500","8HN1.00","8H
 NA.00","8HNB.00","8HNC.00","8HND.00","8HNE.00","8HN2.00","8HN3.00","8HN4.00","8HN5.00","
 8HN6.00","8HN7.00","8HN8.00","8HN9.00","8HN0.00","8HNZ.00","8CO..00","Z177800","8A8..00","
 8Hb..00","8HM4.00","8HMB.00","8HM3.00","8HME.00","8HMJ.00","8HM8.00","8HM1.00","8HMG.
 00","8HM7.00","8HMO.00","8HM5.00","8HM6.00","8HML.00","8HMN.00","8HMD.00","8HMH.00",
 "8HMQ.00","8HMK.00","8HMM.00","8HM2.00","8HMP.00","8HM9.00","8HMC.00","8HMA.00","8H
 MR.00","8HM..00","8HMZ.00","8HMF.00","13F8100","13FS.00","66Yi.00","8H32.00","7701.11","8H
 3E.00","8H3V.00","8H3T.00","8H3I.00","8H3O.00","8H39.00","8H3B.00","8H3M.00","8H3I.00","8H
 3..00","8H36.00","8H3I.00","8H3S.00","8H3C.00","8H3G.00","8H3U.00","8H3D.00","8H3A.00","8H3
 N.00","8H38.00","8H3Q.00","8H3L.00","8H3R.00","8H3P.00","8H3H.00","8H37.00","8H3F.00","8H3
 K.00","7A47.11","7A47.12","7A47.13","7A47.16","7A47.00","7A47z00","7A47y00","7A47.14","7A15
 .00","7A47.15","8H3Z.00","7700y00","7259y00","7B07y00","7513y00","9b8C.00","949B.00","9495"
 ,"9144","9N19.11","7B07.00","7B07z00","T772.00","9b8A.00","8HLP.00","8HKP.00","8HJI.00","8HC
 1.00","8H63.00","ZL51.11","8HC3.00","8H7a.00","8HD..00","8HC..00","8HCZ.00","ZL56.11","ZL51.0
 0","ZL56100","ZL51.13","8HTF.00","ZL56.00","ZL56211","ZL56200","8HX1.00","9H4..00","9H5..00",
 "ZL96.11","ZL91.00","ZL96111","ZL96100","ZL91.12","ZL96211","ZL96200","ZL9GQ00","9N04.00",
 "9N1y300","9N19.00","9N1B.00","8HJ..00","8HJZ.00","8HF..12","7A13411","ZL16.11","ZL11.00","ZL1
 6111","ZL16100","ZL11.12","ZL16.00","ZL16211","ZL16200","8HX0.00","8Ha..00","7A11211","ZV29
 300","ZV29211","ZV29200"

Specific asthma codes previously validated to identify asthma patients in primary care

"H33..","663..","H333..","H33z1","H33z0","H33..","H330..","663V1","663V3","663V0","H331..","H33z.
 ","H33zz","H33z0","H331..","H3300","H3120","173A..","H3301","8H2P..","H330..","663P..","663U..","6
 63N..","H330..","H33z1","9OJA..","663y..","66Y5..","66Y9..","66YJ..","8B3j..","663j..","1O2..","H33z2","66
 3V..","663V2","663N2","66YK..","H3300","H330..","H33zz","8795","8794","66YA..","8796","H3311","6
 6YQ..","663p..","663n..","9OJA..","8798","8797","H33zz","173c..","663d..","8791","663u..","663e..","8CR
 0..","663s..","663v..","663f..","663e1","663e0","H3301","H3310","66YR..","663N0","66YP..","663t..","66
 3O0","663w..","663x..","663N1","H35y7","663r..","H334..","1780","66YC..","663q..","H3312","H330z","
 9OJ1..","663m..","H47y0","H3311","173d..","H35y6","388t..","38DL..","8CMA0","679J0","38DT..","9NN
 X..","679J1","66Yp..","38DV..","1787","1781","66Yr..","66Yq..","1789","663P0","178B..","663P1","1783
 ","679J2","1786","66Ys..","388t0","1788","178A..","1785","1784","1782","663P2","661N1","661M1"
 ,"H335..","66Yu."