Supplemental Table 3. Key Question 4a: Diagnostic accuracy direct comparisons (based on areas under the receiver operating characteristic curve)

| Study, Year | Country | N | Diagnosis | Age-Platelet Index | APRI | AST/ALT Ratio | FibroMeter | Fibrotest | Forns' Index | Hepascore | Platelet Count | Other Predictive Index |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Adams, 200591 | Australia | 117 (derivation sample) | A: Fibrosis (METAVIR F2-F4)B: Severe fibrosis (METAVIR F3-F4)C: Cirrhosis (METAVIR F4) | — | — | — | — | A: 0.79 (0.71-0.88)B: 0.91 (0.83-0.98)C: 0.97 (0.92-1.0) | — | A: 0.85 (0.78-0.93) B: 0.96 (0.92-1.0)C: 0.94 (0.92-1.0) | — | — |
| Adler, 200892 | Belgium | 152 | A: Fibrosis (METAVIR F2-F4)B: Severe fibrosis (METAVIR F3-F4)C: Cirrhosis (METAVIR F4) | — | A: 0.74B: 0.89C: 0.92 | — | — | A: 0.79B: 0.90C: 0.92 | A: 0.75B: 0.90C: 0.89 | — | — | FibroindexA: 0.69B: 0.87C: 0.92FIB-4A: 0.79B: 0.90C: 0.92 |
| Ahmad, 2011a 93 | Pakistan | 157 | A: Fibrosis (METAVIR F2-F4)B: Cirrhosis: METAVIR F4) | — | A: 0.88 | B: 0.61 (0.48-0.74) for cutoff >1, 0.47 (0.38-0.56) for cutoff <1 | — | — | — | — | A: 0.94 (0.90-0.97)B: 0.99 (0.98-1.0) | Fibrosis IndexA: 0.94 (0.90-0.97)B: 0.99 0.98-1.0)Fibrosis-cirrhosis indexA: 0.93 (0.90-0.97)B: 1.0 (0.99-1.0) |
| Borroni, 2006102 | Italy | 228 | Cirrhosis (Knodell F4) | 0.88 (0.82-0.94) | 0.86 (0.79-0.93) | 0.76 (0.68-0.84) | — | — | — | — | — | Cirrhosis Discriminant Score: 0.83 (0.75-0.92) |

| Supplemental Table 3. Key Question 4a: Diagnostic accuracy direct comparisons (based on areas under the receiver operating characteristic curve) (continued) |
| --- |
| Study, Year | Country | N | Diagnosis | Age-Platelet Index | APRI | AST/ALT Ratio | FibroMeter | Fibrotest | Forns' Index | Hepascore | Platelet Count | Other Predictive Index |
| Bota, 2011103 | Romania | 212 | A: Fibrosis (METAVIR F2-F4)B: Severe fibrosis (METAVIR F3-F4)C: Cirrhosis (METAVIR F4) | — | A: 0.69B: 0.82C: 0.88 | — | — | — | A: 0.74B: 0.80C: 0.85 | — | — | King’s ScoreA: 0.76B: 0.82C: 0.89 |
| Bourliere, 2008b104 | France | 467 | A: Fibrosis (METAVIR F2-F4)B: Severe fibrosis (METAVIR F3-F4)C: Cirrhosis (METAVIR F4) | — | — | — | — | A: 0.83 (0.79-0.86)B: 0.84 (0.80-0.87)C: 0.89 (0.86-0.93) | — | A: 0.82 (0.79-0.86)B: 0.84 (0.80-0.87)C: 0.90 (0.87-0.93) | — | — |
| Bourliere, 2006b105 | France | 235 | Fibrosis (METAVIR F2-F4) | — | 0.71 (0.67-0.79) | — | — | 0.81 (0.76-0.86) | 0.76 (0.70-0.82) | — | — | — |
| Boursier, 2009c106 | France | 1,056 | A: Severe fibrosis (METAVIR F3-F4)B: Cirrhosis (METAVIR F4) | — | A: 0.82 (0.79-0.85)B: 0.84 (0.80-0.88) | — | FibrometerA: 0.88 (0.86-0.91)B: 0.91 (0.88-0.93)Modified FibrometerA: Not reportedB: 0.92 (CI not reported) | A: 0.84 (0.81-0.86)B: 0.88 (0.86-0.91) | — | A: 0.83 (0.81-0.86)B: 0.90 (0.87-0.92) | — | — |
| Cales, 2008c110 | France | 1,056 | Fibrosis (METAVIR F2-F4) | — | 0.79 (CI not reported) | — | 0.85 (CI not reported) | 0.81 (CI not reported) | — | 0.78 (CI not reported) | — | FIB-4: 0.80 (CI not reported) |
| Cales, 2010111 | France | 1,056 | Cirrhosis (METAVIR F4) | — | — | — | Fibrometer: 0.91 (0.88-0.93)Fibrometer 3G: 0.89 (0.87-0.92) | 0.88 (0.86-0.91) | — | 0.89 (0.86-0.92) | — | — |
| Castera, 2009e293 | France | 298 | Cirrhosis (METAVIR F4) | — | 0.80 (0.74-0.86) | 0.61 (0.53-0.70) | — | 0.82 (0.73-0.86) | — | — | 0.79 (0.72-0.85) | Lok Index: 0.80 (0.73-0.86) |
| Castera, 2005114 | France | 193 | A: Fibrosis (METAVIR F2-F4)B: Severe fibrosis (METAVIR F3-F4) | — | A: 0.78 (0.70-0.85)B: 0.84 (0.78-0.89) | — | — | A: 0.85 (0.78-0.90)B: 0.90 (0.85-0.94) | — | — | — | — |
| Cheong, 2011115 | Korea | 79 (derivation sample) | Fibrosis (METAVIR F2-F4) | — | 0.82 (0.72-0.92) | — | — | — | 0.80 (0.70-0.90) | — | — | Significant Fibrosis Index: 0.80 (0.70-0.90) ELF index: 0.72 (0.60-0.84)FIB-4: 0.80 (0.80-0.90)Zeng Index: 0.80 (0.70-0.90) |
| Cheung, 2011116 | Belgium | 73 (validation sample) | A: Fibrosis (METAVIR F2-F4)B: Severe fibrosis (METAVIR F3-F4)C: Cirrhosis (METAVIR F4) | — | A: 0.72 (0.60-0.85)B: 0.87 (0.75-0.98)C: 0.92 (0.84-1.0) | — | — | — | — | — |  —  | Fibrosis-protein indexA: 0.82 (0.73-0.92)B: 0.92 (0.86-0.99)C: 0.88 (0.77-0.98) |
| Cheung, 2008117 | USA | 490 | A: Fibrosis (Batts-Ludwig F2-F4)B: Severe fibrosis (Batts-Ludwig F3-F4) | — | A: 0.69 (0.64-0.74)B: 0.76 (0.71-0.81) | A: 0.54 (0.48-0.59)B: 0.52 (0.47-0.58) | — | — | — | — | A: 0.60 (0.56-0.63) for <150; 0.52 (0.51-0.53) for <100B: 0.64 (0.60-0.68) for <150; 0.53 (0.52-0.55) for <100 | Pohl IndexA: 0.52 (0.51-0.54)B: 0.53 (0.51-0.56) |
| Cobbold, 2009229 | UK | 67 | A: Fibrosis (Ishak ≥3)B: Cirrhosis (Ishak 5-6) | — | A: 0.83 (0.73-0.93)B: 0.86 (0.75-0.97) | — | — | — | — | — | — | ELF IndexA: 0.82 (0.73-0.92)B: 0.91 (0.82-1.0) |
| Crisan, 2012122 | Romania | 446 | A: Fibrosis (METAVIR F2-F4)B: Severe fibrosis (METAVIR F3-F4) | — | A: 0.73B: 0.74 | — | A: 0.80B: 0.81 | A: 0.78B: 0.78 | A: 0.68B: 0.74 | A: 0.69B: 0.70 | — | FIB-4A: 0.71B: 0.77 |
| Cross, 2009124 | UK | 602 (derivation sample)105 (validation sample) | A: Fibrosis (Ishak ≥3)B: Cirrhosis (Ishak 5-6) | A: 0.77 (0.73-0.81)B: 0.90 (0.86-0.93) | AL 0.76 (0.72-0.80)B: 0.88 (0.85-0.92) | A: 0.58 (0.51-0.64)B: 0.68 (0.60-0.75) | — | — | — | — | A: 0.66 (0.60-0.72)B: 0.88 (0.85-0.91) | Cirrhosis Discriminant ScoreA: 0.67 (0.62-0.72)B: 0.74 (0.68-0.81)FIB-4A: 0.76 (0.68-0.83)B: 0.91 (0.89-0.94)King's ScoreA: 0.79 (0.75-0.83)B: 0.91 (0.89-0.94) Pohl IndexA: 0.53 (0.46-0.59)B: 0.64 (0.55-0.73) |
| Ehsan, 2008125 | Egypt | 116 | Cirrhosis (Ishak 5-6) | 0.91 (CI not reported) | 0.86 (CI not reported) | 0.65 (CI not reported) | — | — | — | — | — | Lok Index: 0.88 (CI not reported)Cirrhosis discriminate score: 0.87 (CI not reported)Goteborg University Cirrhosis Index: 0.86 (CI not reported)Pohl Index: 0.66 (CI not reported) |
| El-Sayed, 2011127 | Egypt | 37 | Severe fibrosis (METAVIR F3-F4) | — | 0.63 | 0.76 | — | — | — | — | — | — |
| Fabris, 2008129 | Italy | 167 | A: Fibrosis (METAVIR F2-F4)B: Cirrhosis (METAVIR F4) | A: 0.64 (0.56-0.72)B: 0.67 (0.59-0.74) | A: 0.72 (0.64-0.79)B: 0.86 (0.79-0.90) | A: 0.59 (0.51-0.66)B: 0.66 (0.58-0.73) | — | — | A: 0.70 (0.62-0.76)B: 0.86 (0.80-0.91) | — | — | Cirrhosis Discriminant ScoreA: 0.64 (0.56-0.71)B: 0.71 (0.64-0.78)FibroindexA: 0.71 (0.63-0.77)B: 0.86 (0.80-0.91) |
| Fontana, 2008130 | USA | 513 | Cirrhosis (Ishak 5-6) | — | 0.73 (0.69-0.78) | — | — | — | — | — | — | Cirrhosis Discriminant Score0.70 (0.66-0.75)HALT-C model: 0.81 (0.77-0.85)Lok Index: 0.79 (0.74-0.83) |
| Giannini, 2003b135 | Italy | 239 | Fibrosis (criteria not reported) | — | A: 0.77 (CI not reported)B: 0.81 (CI not reported) | A: 0.82 (CI not reported)B: 0.91 (CI not reported) | — | — | — | — | — | — |
| Güzelbulut, 2011142 | Turkey | 150 | A: Fibrosis (METAVIR F2-F4)B: Cirrhosis (METAVIR F4) | — | A: 0.77 (0.73-0.86)B: 0.84 (0.77-0.91) | — | — | — | A: 0.80 (0.73-0.86)B: 0.88 (0.82-0.90) | — | — | FIB-4A: 0.76 (0.69-0.84)B: 0.87 (0.82-0.93) |
| Halfon, 2007b,d145 | France | 356 | A: Fibrosis (METAVIR F2-F4)B: Severe fibrosis (METAVIR F3-F4)C: Cirrhosis (METAVIR F4) | — | A: 0.76 (0.72-0.81)B: 0.81 (0.76-0.85)C: 0.92 (0.88-0.94) | — | A: 0.78 (0.73-0.82)B: 0.84 (0.80-0.88)C: 0.94 (0.91-0.96) | A: 0.79 (0.75-0.83)B: 0.81 (0.77-0.85)C: 0.86 (0.82-0.89) | — | A: 0.76 (0.71-0.80)B: 0.81 (0.76-0.85)C: 0.89 (0.86-0.92) | — | — |
| Islam, 2005151 | Sweden | 179 | A: Fibrosis (Ishak ≥3)B: Cirrhosis (Ishak 5-6) | — | A: 0.71 (CI not reported)B: 0.83 (CI not reported) | — | — | — | — | — | — | Goteborg University Fibrosis IndexA: 0.72 (CI not reported)B: 0.85 (CI not reported) |
| Ben Jazia, 200998 | Tunisia | 35 | Fibrosis (METAVIR F2-F4) | — | 0.91 (CI not reported) | 0.68 (CI not reported) | — | — | — | — | 0.38 (CI not reported) | — |
| Koda, 2007155 | Japan | 240 (derivation sample)162 (validation sample) | A: Fibrosis (METAVIR F2-F4)B: Severe fibrosis (METAVIR F3-F4) | — | A: 0.79 (0.74-0.85)B: 0.80 (0.74-0.86) | — | — | — | A: 0.79 (0.73-0.84)B: 0.77 (0.70-0.83) | — | — | FibroindexA: 0.83 (0.78-0.88) B: 0.81 (0.76-0.87) |
| Koda, 2007155 | Japan | 162 (validation sample) | A: Fibrosis (METAVIR F2-F4)B: Severe fibrosis (METAVIR F3-F4) | — | A: 0.82 (0.76-0.88)B: 0.81 (0.74-0.88) | — | — | — | A: 0.84 (0.77-0.90)B: 0.83 (0.77-0.89) | — | — | FibroindexA: 0.86 (0.81-0.92)B: 0.85 (0.79-0.91) |
| Lackner, 2005156 and Lackner, 2006224 | Austria | 194 | A: Fibrosis (Ishak ≥3)B: Cirrhosis (Ishak 5-6) | A: 0.74 (0.67-0.81)B: 0.91 (0.87-0.96) | A: 0.80 (0.73-0.86)B: 0.90 (0.85-0.95) | A: 0.57 (0.48-0.65)B: 0.73 (0.63-0.83) | — | — | — | — | A: 0.71 (0.64-0.79)B: 0.89 (0.83-0.94) | Cirrhosis Discriminant ScoreA: 0.71 (0.63-0.79)B: 0.91 (0.85-0.96) |
| Leroy, 2008157 | France | 825 | A: Fibrosis (METAVIR F2-F4)B: Severe fibrosis (METAVIR F3-F4)C: Cirrhosis (METAVIR F4) | — | A: 0.79 (0.76-0.82)B: 0.84 (0.80-0.87)C: 0.86 (0.82-0.90) | — | A: 0.84 (0.81-0.87)B: 0.89 (0.87-0.92)C: 0.93 (0.90-0.95) | A: 0.80 (0.77-0.83)B: 0.85 (0.82-0.88)C: 0.89 (0.86-0.92) | — | A: 0.78 (0.75-0.81)B: 0.84 (0.81-0.87)C: 0.89 (0.86-0.93) | — | — |
| Leroy, 2007d158 | France | 180 | A: Fibrosis (METAVIR F2-F4)B: Severe fibrosis (METAVIR F3-F4) | — | A: 0.81 (0.74-0.88)B: 0.82 (0.74-0.90) | — | A: 0.86 (0.80-0.91)B: 0.91 (0.86-0.96) | A: 0.84 (0.79-0.90)B: 0.87 (0.81-0.93) | A: 0.78 (0.71-0.85)B: 0.78 (0.71-0.87) | A: 0.79 (0.72-0.85)B: 0.85 (0.80-0.92) | — | MP3 scoreA: 0.84 (0.78-0.90)B: 0.88 (0.82-0.93) |
| Liu, 2006160 | Taiwan | 79 | Fibrosis (METAVIR F2-F4) | A: 0.64 (0.51-0.77) | A: 0.67 (0.54-0.81) | A: 0.50 (0.35-0.66) | — | — | — | — | — | — |
| Martinez, 2011165 | Spain | 340 | A: Fibrosis (METAVIR F2-F4)B: Severe fibrosis (METAVIR F3-F4)C: Cirrhosis (METAVIR F4) | — | A: 0.83 (0.79-0.88)B: 0.86 (0.82-0.90)C: 0.86 (0.82-0.90) | — | — | — | A: 0.83 (0.78-0.87)B: 0.85 (0.81-0.89)C: 0.87 (0.83-0.91) | — | — | Simplified ELF indexA: 0.81 (0.76-0.86)B: 0.83 (0.79-0.87)C: 0.82 (0.78-0.87)FIB-4A: 0.85 (0.81-0.89)B: 0.87 (0.83-0.91)C: 0.89 (0.85-0.92) |
| Myers, 2003f170 | France | 323 | A: Fibrosis (METAVIR F2-F4)B: Severe fibrosis (METAVIR F3-F4) | A: 0.72 (0.69-0.75)B: 0.81 (0.78-0.84) | — | — | — | A: 0.84 (0.82-0.86)B: 0.92 (0.90-0.94) | — | — | A: 0.67 (0.64-0.70)B: 0.74 (0.70-0.78) | — |
| Myers, 2002f171 | France | 211 | A: Fibrosis (METAVIR F2-F4)B: Severe fibrosis (METAVIR F3-F4) | — | — | — | — | A: 0.80 (0.76-0.83)B: 0.92 (0.89-0.95) | — | — | — | Historical indexA: 0.71 (0.67-0.75)B: 0.76 (0.71-0.81) |
| Parise, 2006176 | Brazil | 206 | A: Fibrosis (Batts-Ludwig F2-F4)B: Cirrhosis (Batts-Ludwig F4) | — | A: 0.82 (0.77-0.88)B: 0.84 (0.77-0.90) | A: 0.59 (0.51-0.67)B: 0.65 (0.56-0.75) | — | — | — | — | — | — |
| Park, 2011178 | Korea | 91 | Fibrosis (METAVIR F2-F4) | — | 0.79 (0.69-0.89) | — | — | — | — | — | — | Multi-biomarker score: 0.78 (0.68-0.89) |
| Patel, 2009180 | France, Germany, Canada | 95 | Fibrosis (METAVIR F2-F4) | — | — | — | — | 0.89 (0.81-0.97) | — | — | — | FibroSpect II: 0.90 (0.84-0.96) |
| Romera, 2006189 | Spain | 131 | Fibrosis (Scheuer F2-F4) | — | 0.70 (CI not reported) | — | — | — | 0.71 (CI not reported) | — | — | Fibrosis Probability Index: 0.80 (CI not reported) |
| Sebastiani, 2008g198 | Italy | 244 (80 normal ALT, 164 elevated ALT) | Fibrosis (METAVIR F2-F4) | — | Normal ALT: 0.69 (0.54-0.85)Elevated ALT: 0.75 (0.65-0.85) | Normal ALT: 0.51 (0.40-0.62)Elevated ALT: 0.54 (0.48-0.60) | — | Normal ALT: 0.70 (0.59-0.81)Elevated ALT: 0.79 (0.74-0.84) | Normal ALT: 0.60 (0.50-0.71)Elevated ALT: 0.76 (0.71-0.81) | — | — | FibroindexNormal ALT: 0.58 (0.43-0.73)Elevated ALT: 0.74 (0.63-0.85) |
| Sebastiani, 2006g199 | Italy | 190 | A: Fibrosis (METAVIR F2-F4)B: Cirrhosis (METAVIR F4) | — | A: 0.69 (0.54-0.85) (elevated ALT) and 0.77 (0.63-0.91) (normal ALT)B: 0.61 (0.49-0.73) (whole sample) | — | — | A: 0.81 (0.72-0.91) (elevated ALT) and 0.71 (0.49-0.92) (normal ALT)B: 0.71 (0.60-0.82) (whole sample) | A: 0.79 (0.68-0.90) (elevated ALT) and 0.58 (0.43-0.73) (normal ALT)B: Not reported | — | — | — |
| Sebastiani, 2011200 | Europe | 1,810 | A: Fibrosis (METAVIR F2-F4)B: Cirrhosis (METAVIR F4) | — | A: 0.70 (0.65-0.75) (whole sample) and 0.63 (0.57-0.71) (normal ALT)B: 0.76 (0.71-0.81) (whole sample) and 0.65 (0.60-0.70) (normal ALT) | B: 0.53 (0.46-0.58) (normal ALT) | — | A: 0.70 (0.65-0.75) (whole sample) and 0.62 (0.58-0.66) (normal ALT)B: 0.72 (0.67-0.77) (whole sample) and 0.65 (0.60-0.70) (normal ALT) | A: 0.60 (0.55-0.65) (normal ALT) | — | B: 0.64 (0.58-0.70) (normal ALT) | FIB-4A: 0.61 (0.56-0.66) (normal ALT)Lok IndexB: 0.61 (0.57-0.69) (normal ALT) |
| Sebastiani, 2012201 | Europe | 1,013 | A: Fibrosis (METAVIR F2-F4)B: Cirrhosis (METAVIR F4) | — | A: 0.70 (0.64-0.76)B: 0.77 (0.71-0.83) | — | — | A: 0.71 (0.64-0.78)B: 0.72 (0.67-0.77) | A: 0.64 (0.58-0.70) | — | — | — |
| Sirli, 2010204  | Romania | 150 | A: Fibrosis (METAVIR F2-F4)B: Cirrhosis (METAVIR F4) | — | A: 0.77 (0.69-0.83)B: 0.91 (0.85-0.95) | — | — | — | A: 0.75 (0.67-0.82)B: 0.91 (0.85-0.95) | — | A: 0.73 (0.65-0.80)B: 0.90 (0.84-0.94) | FIB-4A: 0.69 (0.60-0.76)B: 0.84 (0.77-0.90)Lok IndexA: 0.70 (0.62-0.77)B: 0.87 (0.81-0.92) |
| Snyder, 2007206 | USA | 93 | Fibrosis (Batts-Ludwig F2-F4) | — | 0.89 (0.81-0.92) | — | — | — | — | — | — | FIBROSpect II: 0.88 (0.79-0.94) |
| Wilson, 2006219 | USA | 119 | Ishak 3-4 fibrosis | — | 0.70 (CI not reported) | — | — | 0.74 (CI not reported) | — | — | — | — |
| Zarski, 2012223 | France | 436 | A: Fibrosis (METAVIR F2-F4)B: Cirrhosis (METAVIR F4) | — | A: 0.76 (0.72-0.81)B: 0.86 (0.81-0.91) | — | A: 0.82 (0.78-0.86)B: 0.89 (0.86-0.93) | A: 0.80 (0.75-0.84)B: 0.86 (0.83-0.90) | A: 0.75 (0.71-0.80) | A: 0.82 (0.78-0.85)B: 0.89 (0.86-0.93) | — | MP3A: 0.76 (0.71-0.80)ELFA: 0.78 (0.74-0.83)B: 0.88 (0.83-0.92)FIB-4B: 0.83 (0.76-0.89) |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

a Study reports different AUROCs for the same index and diagnosis.

b Evaluated overlapping populations from the FIBROPACA study.

c Evaluated the same population.

d Population included in Cales 2008.

e Incorporated population evaluated in Castera 2005.

f Evaluated same population.

g Populations substantially overlap.