**Supplementary Table 4. Summary of researches for IPVD in patient with liver disease**

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| Reference | Team | Institution | Diagnosis | Variable(s) | Results | Population |
| Acta gastro- enterologica belgica.2013 | Andrei Voiosu | Colentina Clinical Hospital, Bucharest, Romania. | IPVD | SpO2(supine)minus SpO2(standing) >2% | The AUCROC was 0.82 (0.68-0.97). The sensitivity/specificity were 60%/94%. | Cirrhotic patients |
| Gut.2002 | P Schenk | Department of Internal Medicine IV, Intensive Care Unit, University of Vienna. | IPVD with hypoxemia | PaO2 <age relatedthreshold value mm Hg | The PPV/NPV were 94%/78%. | Cirrhotic patients |
| AaDO2 >age relatedthreshold value mm Hg | The PPV/NPV were 53%/87%. |
| World J Gastroenterol.2006 | Amir Houshang Mohammad Alizadeh | Research Center for Gastroenterology and Liver Disease, ShaheedBeheshti University of Medical Sciences | IPVD with hypoxemia | Cyanosis | The sensitivity/specificity were 90%/80%. The PPV/NPV were 60%/97%. | Cirrhotic patients |
| Clubbing | The sensitivity/specificity were 80%/91%. The PPV/NPV were 75%/95%. |
| Dyspnea | The sensitivity/specificity were 100%/75%. The PPV/NPV were 50%/100%. |
| Palmar erythema | The sensitivity/specificity were 80%/71%. The PPV/NPV were 38%/94%. |
| Spider angioma | The sensitivity/specificity were 80%/70·5%. The PPV/NPV were 38%/94%. |
| Hepatology.2019 | Kimberly A. Forde | Center for Clinical Epidemiology and Biostatistics Perelman School of Medicine University of Pennsylvania | IPVD with hypoxemia | SpO2＜96% | The AUCROC was 0.59 (0.51-0.66). Then sensitivity and specificity were 28% and 94%. | LT candidates with POH |

AaDO2, alveolar-arterial gradient; LT, liver transplantation; POH, portal hypertension.