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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Study** | **THA Indication** | | **Risk/Prognostic Indicator Used** | | **Comorbid Conditions** | | | | | | | | | | |
| **OA**  **(%)** | **RA**  **(%)** | **CCI Score**  **(Mean ± SD)** | **ASA Score**  **(%)** | **HTN**  **(%)** | **DM**  **(%)** | **Obesity**  **(%)** | **Dyslipidemia**  **(%)** | **CKD**  **(%)** | **Heart Disease**  **(%)** | **Hypothyroidism**  **(%)** | **COPD**  **(%)** | **PVD**  **(%)** | **Depression**  **(%)** | **Other**  **(%)** |
| **Adelani, et al.(**[**1**](#_ENREF_1)**)** | - | - | - | - | - | 15.9 | 16.5 | - | 4.7 | 3.1 | - | - | - | - | - |
| **Boas, et al. (**[**2**](#_ENREF_2)**)** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Camberlin, et al. (**[**3**](#_ENREF_3)**)** | 91.7 | - | 0.4 ± 1.0  (3.9% had CCI ≥ 3) | - | - | - | - | - | - | - | - | - | - | - | Bone/ Cartilage Disorders: 6.6 |
| **Cossec, et al.(**[**4**](#_ENREF_4)**)** | - | - | - | - | 59.0 | 11.0 | 0.17 | 39.0 | - | - | - | - | - | 15.0 | Benzodiazepines Use: 38.0  Antiosteoporotic Use: 9.0  Steroid Use: 16.0 |
| **Doro, et al(**[**5**](#_ENREF_5)**)** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 Comorbid: 85.00  2 Comorbids: 13.7  3 Comorbids: 1.2  > 3 Comorbids: 0.1 |
| **Dy, et al. (**[**6**](#_ENREF_6)**)** | 77.0 | 4.2 | - | - | 45.6 | 8.8 | 6.5 | - | - | 2.7 | 9.3 | 11.1 | 1.6 | 4.3 | Valvular Disease: 4.1  Neurological: 2.2  Coagulopathy: 1.0  Fluid/Electrolyte: 5.5 |
| **Espehaug, et al.(**[**7**](#_ENREF_7)**)** | 0.88 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Glassou, et al.(**[**8**](#_ENREF_8)**)** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Helkamaa, et al. (**[**9**](#_ENREF_9)**)** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Huang, et al.(**[**10**](#_ENREF_10)**)** | 48.5 | 0.56 | 0.24 ± 0.60  (4.15% had CCI ≥ 2) | - | - | - | - | - | - | - | - | - | - | - | - |
| **Hughes, et al. (**[**11**](#_ENREF_11)**)** | - | - | - | - | - | 7.0 | - | - | - | 19.0 | - | - | - | - | - |
| **Jarvelin, et al.(**[**12**](#_ENREF_12)**)** | - | - | 0.38 ± 0.79 | - | - | - | - | - | - | - | - | - | - | - | - |
| **Kaneko, et al.(**[**13**](#_ENREF_13)**)** | 86.0 | 4.0 | 20.7% ≥ 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| **Katz, et al.**  **(2001) (**[**14**](#_ENREF_14)**)** | 94.0 | 3.6 | 13.8% had CCI > 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| **Katz, et al.**  **(2003) (**[**15**](#_ENREF_15)**)** | 86.7 | 4.0 | 28.3% had CCI ≥ 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| **Katz, et al.**  **(2012) (**[**16**](#_ENREF_16)**)** | 100 | - | 13.0% had CCI > 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| **Khatod, et al.(**[**17**](#_ENREF_17)**)** | 91.2 | 2.0 | - | 34.8% had ASA ≥ 3 | - | 18.7 | 39.5 | - | - | - | - | - | - | - | - |
| **Khuri, et al.(**[**18**](#_ENREF_18)**)** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Kreder, et al.**  **(1997) (**[**19**](#_ENREF_19)**)** | 85.0 | - | 22.9% had CCI ≥ 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| **Kreder, et al.**  **(1998) (**[**20**](#_ENREF_20)**)** | 92.4 | - | 17.1% had CCI ≥ 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| **Laura, et al.(**[**21**](#_ENREF_21)**)** | 96.5 | 0.2 | - | - | - | - | - | - | - | - | - | - | - | - | ≥1 Comorbid: 6.8 |
| **Losina, et al. (**[**22**](#_ENREF_22)**)** | 88.0 | 3.0 | 14.0% had CCI > 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| **Maceroli, et al.(**[**23**](#_ENREF_23)**)** | - | 3.8 | 1.1 ± 0.9 | - | - | 14.5 | - | 0.3 | 5.3 | 13.1 | - | 18.0 | 3.7 | - | Acute MI: 7.0  Cerebrovascular Disease: 5.18  Dementia: 3.6  PUD: 1.0  Liver Disease: 0.5  Hemi-/Paraplegia: 0.1  Cancer: 2.2  Metastatic Cancer: 0.9 |
| **Makela, et al.(**[**24**](#_ENREF_24)**)** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Manley, et al.(**[**25**](#_ENREF_25)**)** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Martineau, et al. (**[**26**](#_ENREF_26)**)** | - | - | - | - | 25.4 | 5.8 | - | 3.2 | - | 1.2 | - | - | - | - | Acute MI: 3.0  Cerebrovascular Disease: 1.7 |
| **Meyer, et al.(**[**27**](#_ENREF_27)**)** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Mitsuyasu, et al. (**[**28**](#_ENREF_28)**)** | - | - | - | - | - | - | 60.1 | - | - | - | - | - | - | - | ≥ 1 Comorbid: 37.2 |
| **Muilwijk, et al.(**[**29**](#_ENREF_29)**)** | - | - | - | 12.4% had ASA > 2 | - | - | - | - | - | - | - | - | - | - | - |
| **Namba, et al.(**[**30**](#_ENREF_30)**)** | 90.9 | 2.2 | - | 34.6% had ASA ≥ 3 | - | 18.3 | 39.0 | - | - | - | - | - | - | - | - |
| **Ong, et al.(**[**31**](#_ENREF_31)**)** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Pablo, et al.**  **(2004) (**[**32**](#_ENREF_32)**)** | 95.0 | 5.0 | 22.0% had CCI ≥ 2 | - | - | - | 24.0 | - | - | - | - | - | - | - | - |
| **Pablo, et al**  **(2006) (**[**33**](#_ENREF_33)**)** | 87.6 | - | 44.0% had CCI ≥ 1 | - | - | - | 23.8 | - | - | - | - | - | - | - | - |
| **Pamilo, et al.(**[**34**](#_ENREF_34)**)** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Paterson, et al.(**[**35**](#_ENREF_35)**)** | - | 13.0 | 5.2% had CCI ≥ 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| **Paxton, et al.(**[**36**](#_ENREF_36)**)** | 100 | 3.0 | - | 36.9% had ASA ≥ 3 | 61.1 | 18.9 | 40.2 | - | 8.8 | 2.9 | 13.6 | 15.0 | 4.8 | 5.7 | Deficiency Anemia: 12.1  Psychoses: 6.3  Fluid/Electrolyte Disorder: 6.1  Valvular Disease: 3.8  Blood Loss Anemia: 2.7  Liver Disease: 2.3  Alcohol Abuse: 2.2  Coagulopathy: 2.0  Neurological Disorders: 2.8  Drug Abuse: 1.1  Solid Tumor: 1.2  Lymphoma: 0.4  Metastatic Cancer: 0.3  AIDS: 0.2  PUD: 0.00008  Pulmonary Circulation Disease: 0.9 |
| **Ramkumar, et al. (**[**37**](#_ENREF_37)**)** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Shi, et al.(**[**38**](#_ENREF_38)**)** | 42.1 | 1.2 | 0.7 ± 0.6  14.8% had CCI ≥ 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| **Singh, et al.(**[**39**](#_ENREF_39)**)** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Solomon, et al.(**[**40**](#_ENREF_40)**)** | 94.0 | 4.0 | 35.0% had CCI ≥ 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| **Soohoo, et al.(**[**41**](#_ENREF_41)**)** | - | 4.0 | - | - | - | 8.0 | - | - | - | - | - | - | 2.0 | - | - |
| **Styron, et al. (**[**42**](#_ENREF_42)**)** | - | - | 29.55% had CCI ≥ 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| **Table**: Comorbids reported across studies  THA: Total Hip Arthroplasty; OA: Osteoarthritis; RA: Rheumatoid Arthritis; CCI Score: Charlson’s Comorbidity Index Score; ASA: American Society of Anesthesiologists Physical Status Classification System; HTN: Hypertension; DM: Diabetes Mellitus; CKD: Chronic Kidney Disease; COPD: Chronic Obstructive Pulmonary Disease; PVD: Peripheral Vascular Disease; MI: Myocardial Infarction; AIDS: Acquired Immunodeficiency Syndrome; PUD: Peptic Ulcer Disease; | | | | | | | | | | | | | | | |

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