Population Characteristics from Truven

|  |  |  |
| --- | --- | --- |
| **Out of overall MASLD patients (non cirrhotic at MASLD diagnosis)** | | |
| Overall (N= 859970) | Male | Female |
| Age <50 | 187674 (21.8%) | 179391 (20.9%) |
| Age >=50 | 222642 (25.9%) | 270263 (31.4%) |
| **Out of patients who developed cirrhosis (61051/859970 = 7.1%)** | | |
| Undiagnosed cirrhosis (N=, %) | Male | Female |
| Age <50 | N (%) | N (%) |
| Age >=50 | N (%) | N (%) |
| Diagnosed cirrhosis (N=,%) | Male | Female |
| Age <50 | N (%) | N (%) |
| Age >=50 | N (%) | N (%) |
| **Out of patients who develop HCC** | | |
| HCC (N=) | Male | Female |
| Age <50 | N (%) | N (%) |
| Age >=50 | N (%) | N (%) |

Measures of health state transition (annual incidence from literature)

|  |  |  |
| --- | --- | --- |
| **Annual incidence** | **Value** | **Reference** |
| No cirrhosis (NC) to: |  |  |
| (NC) | -- | -- |
| CC |  |  |
| HCC (early stage) |  |  |
| In males |  |  |
| In females |  |  |
| In age<50 |  |  |
| In age>=50 |  |  |
| Death |  |  |
| Compensated cirrhosis (CC) to: |  |  |
| (CC) | -- | -- |
| DC |  |  |
| HCC (early stage) |  |  |
| In males |  |  |
| In females |  |  |
| In age<50 |  |  |
| In age>=50 |  |  |
| Death |  |  |
| Decompensated cirrhosis (DC) to: |  |  |
| (DC) | -- | -- |
| HCC (early stage) |  |  |
| In males |  |  |
| In females |  |  |
| In age<50 |  |  |
| In age>=50 |  |  |
| Liver Transplant |  |  |
| Death |  |  |
| Early stage HCC to: |  |  |
| (Early stage HCC) | -- | -- |
| Intermediate stage HCC |  |  |
| Curative treatment |  |  |
| Death |  |  |
| In males |  |  |
| In females |  |  |
| In age<50 |  |  |
| In age>=50 |  |  |
| In treated |  |  |
| In untreated |  |  |
| Intermediate stage HCC to: |  |  |
| (Intermediate stage HCC) | -- | -- |
| Late stage HCC |  |  |
| Curative treatment |  |  |
| Palliative treatment |  |  |
| Death |  |  |
| In males |  |  |
| In females |  |  |
| In age<50 |  |  |
| In age>=50 |  |  |
| In treated |  |  |
| In untreated |  |  |
| Late stage HCC to: |  |  |
| (Late stage HCC) | -- | -- |
| Palliative treatment |  |  |
| Death |  |  |
| In males |  |  |
| In females |  |  |
| In age<50 |  |  |
| In age>=50 |  |  |
| In treated |  |  |
| In untreated |  |  |

Sensitivity/Specificity of HCC screening from literature

|  |  |  |  |
| --- | --- | --- | --- |
| **Probability** | **Definition** | **Value** | **Reference** |
| Sensitivity of US/AFP | Used to account for false negative HCC screening. If patient receives false negative result, then they will incur an additional cost and decrease in utility due to time lost. |  |  |
| Specificity of US/AFP | Used to account for false positive HCC screening. If patient receives false positive result, then they will incur an additional cost and decrease in utility due to time lost. |  |  |

Quality of life by health state from literature

|  |  |  |
| --- | --- | --- |
| **Health State** | **Utility** | **Reference** |
| No cirrhosis |  |  |
| Compensated cirrhosis |  |  |
| Decompensated cirrhosis |  |  |
| False positive HCC |  |  |
| Early stage HCC |  |  |
| Intermediate stage HCC |  |  |
| Late stage HCC |  |  |
| Death | 0 | -- |

Costs from literature

|  |  |  |
| --- | --- | --- |
| **Cost** | **Value** | **Reference** |
| Repeat **CT/MRI** for false positive HCC |  |  |
| Cost of biannual **US+AFP screening** |  |  |
| Cost for medical care of patients with **non-cirrhotic MASLD** |  |  |
| Cost for medical care of patients with **MASLD and compensated cirrhosis** |  |  |
| Cost for medical care of patients with **MASLD and decompensated cirrhosis** |  |  |
| Cost for **liver transplant** |  |  |
| Cost for medical care (follow up and treatment) of patients with **early stage HCC** |  |  |
| Cost for medical care (follow up and treatment) of patients with **intermediate stage HCC** |  |  |
| Cost for medical care (follow up and treatment) of patients with **late stage HCC** |  |  |
| Cost for **terminally ill/additional costs associated with death** |  |  |

Data we can use to double check our model

* 5/10 year incidence of cirrhosis in MASLD patients
* 5/10 year survival rate in MASLD-HCC patients