PERSUADE

2025-08-13

Contents

Link to PERSUADE GitHub page

1. Kaplan-Meier

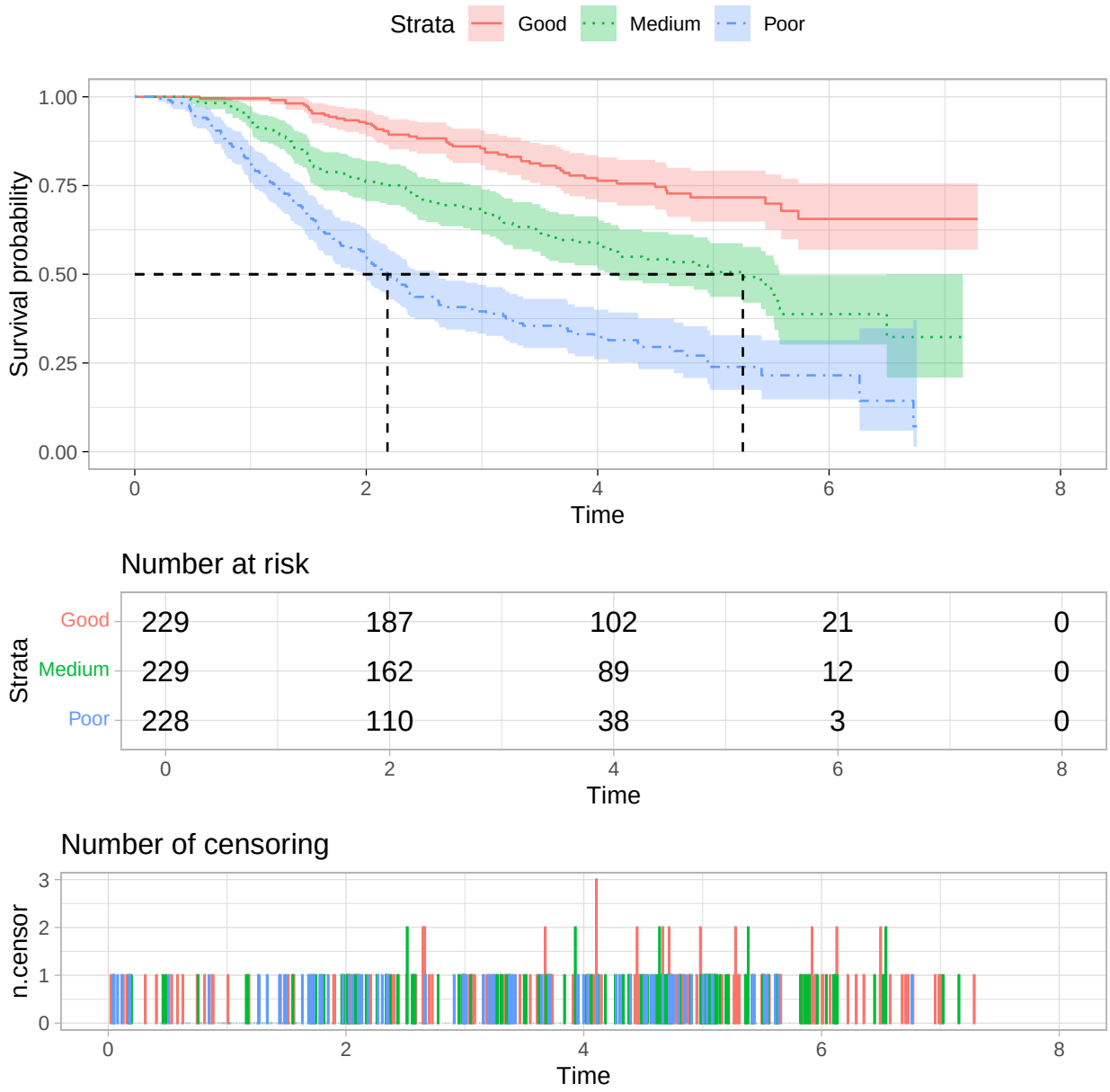
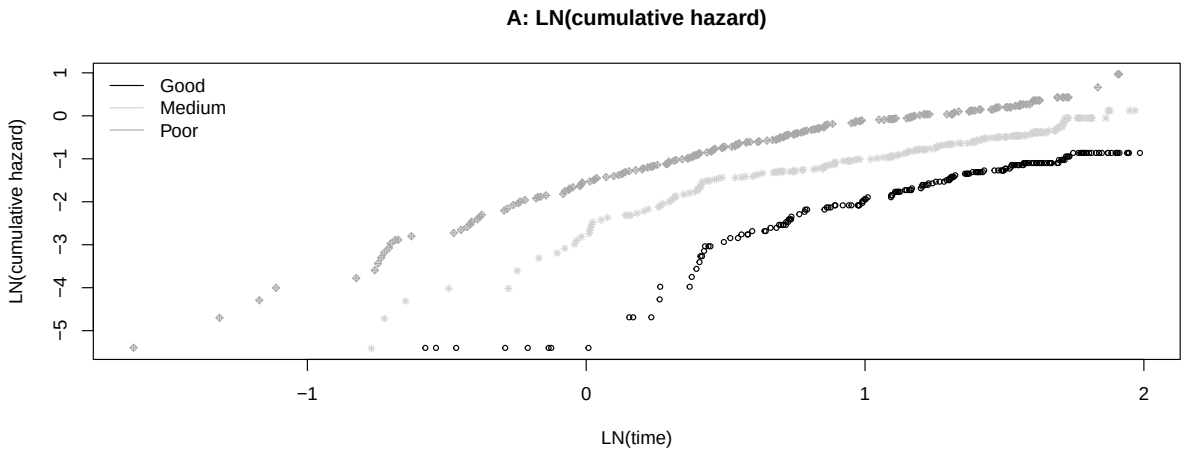
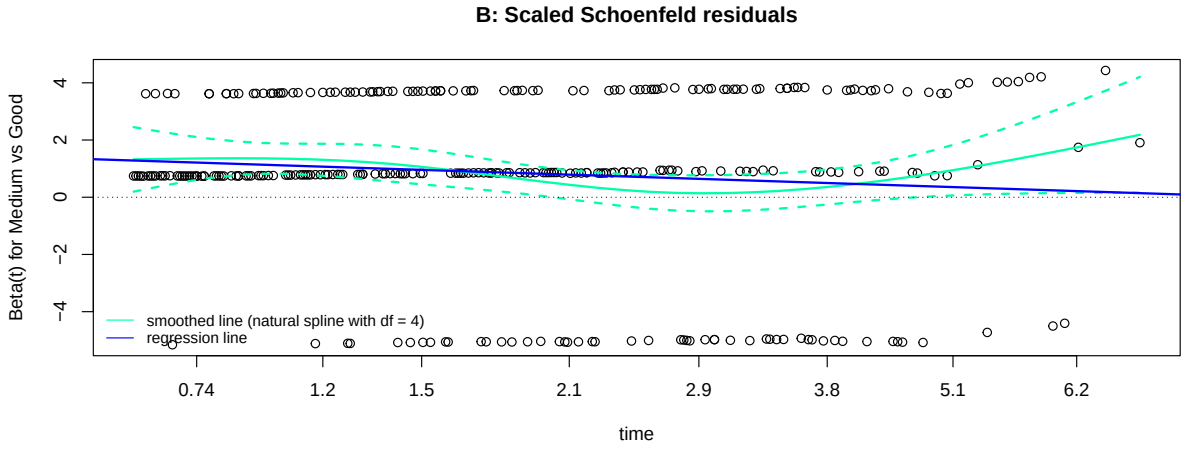


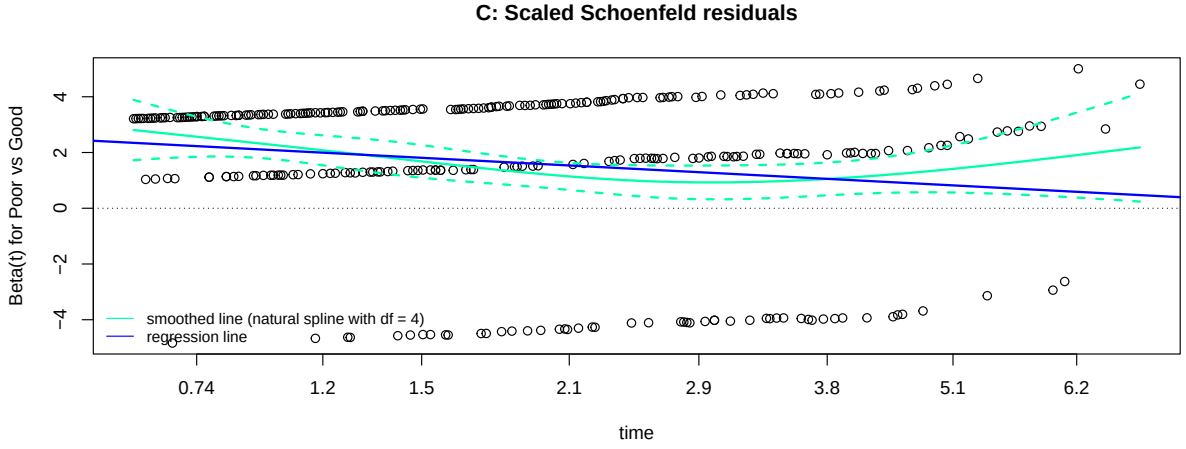
Table 1: Observed survival data

	records	n.max	n.start	events	rmean	se(rmean)	median	0.95LCL	0.95UCL
group=Good	229	229	229	51	5.934	0.1616	NA	NA	NA
group=Medium	229	229	229	103	4.601	0.1857	5.255	4.115	5.573
group=Poor	228	228	228	145	3.102	0.1773	2.184	1.978	2.619

2. Proportional hazards assumption

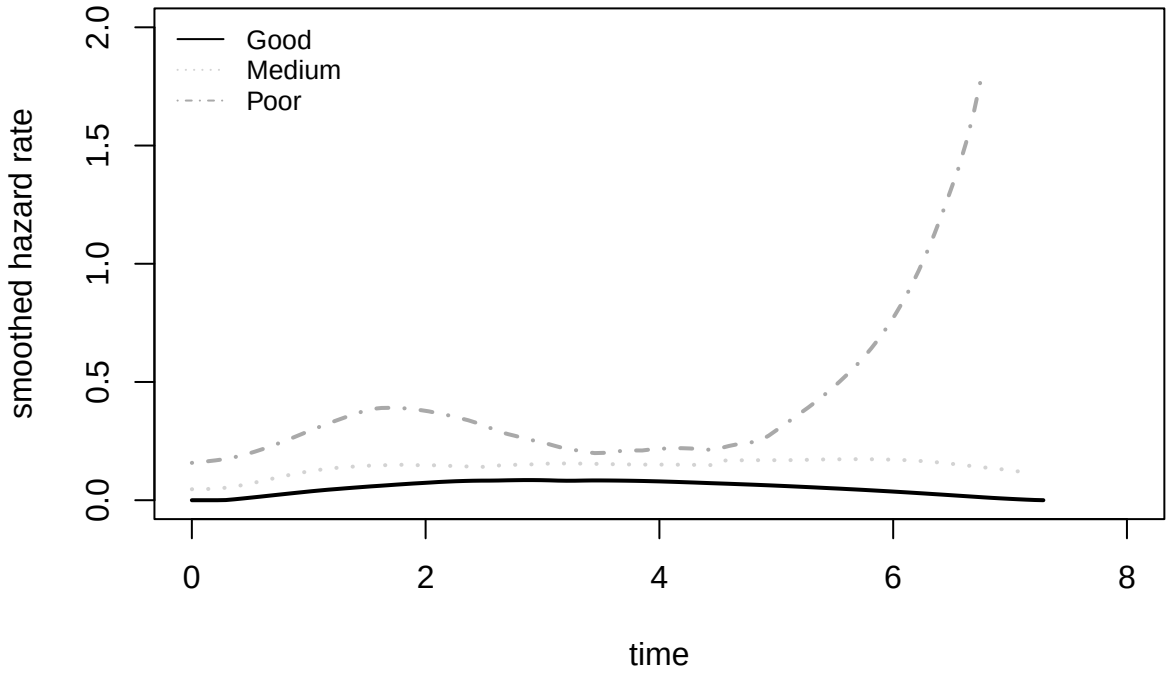




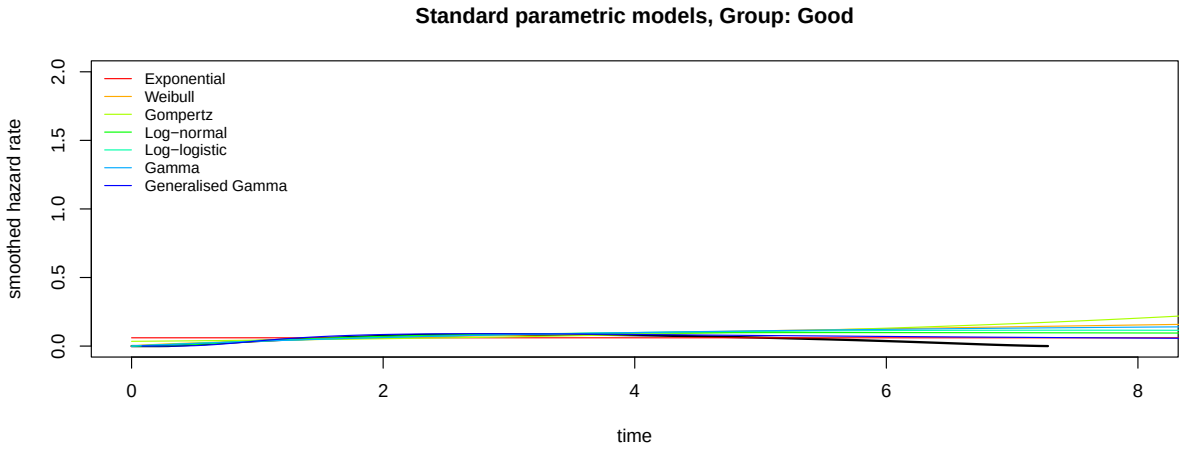


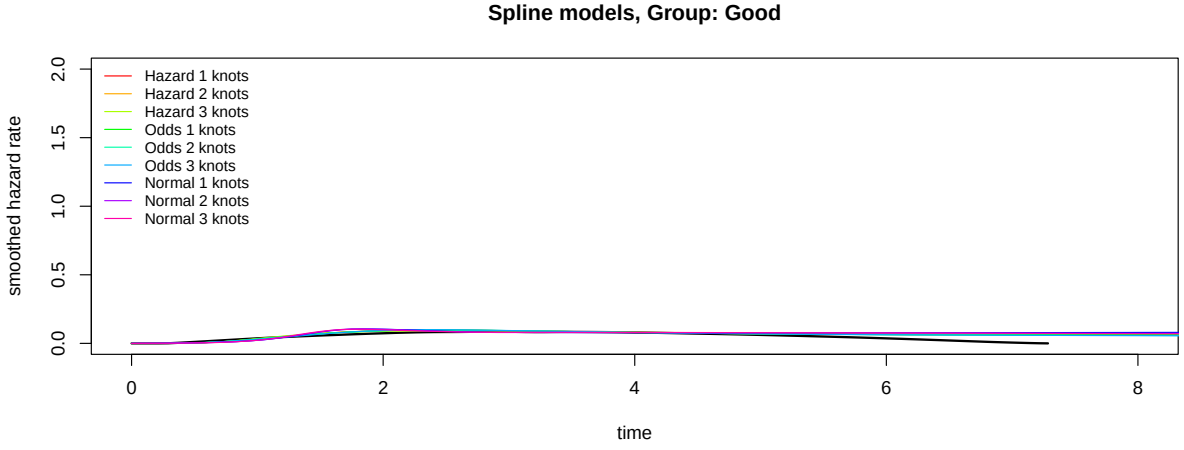
3. Hazard function

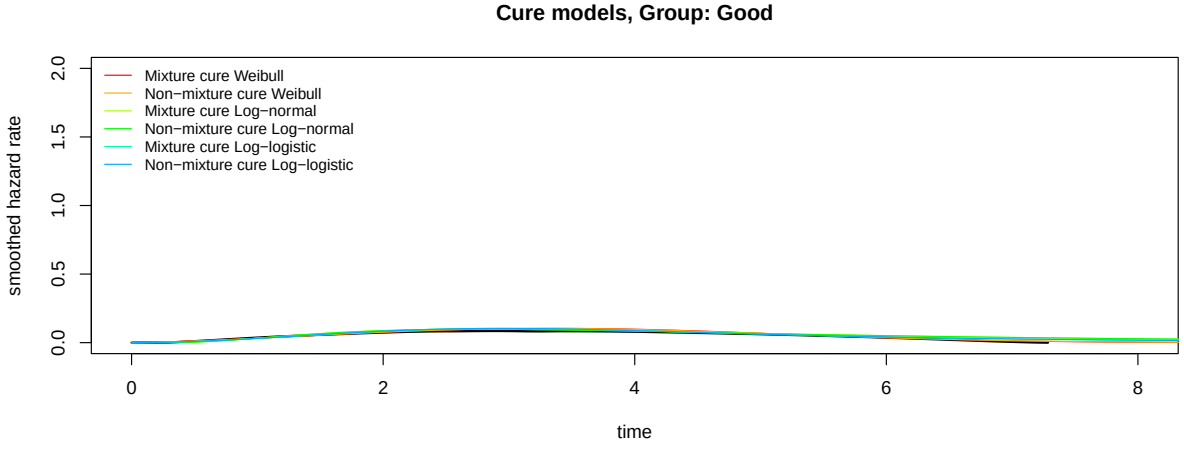
3.1 Shape of the observed smoothed hazard function

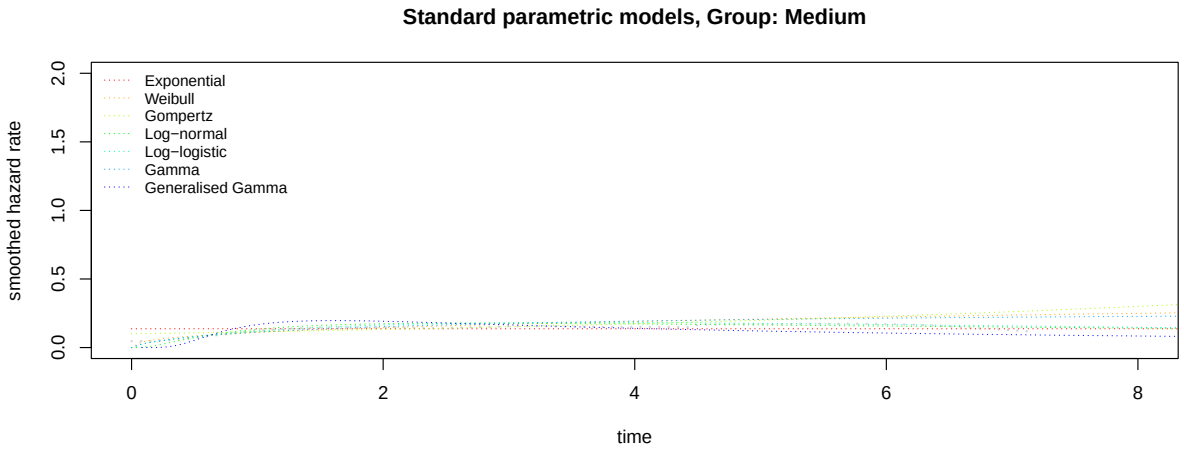


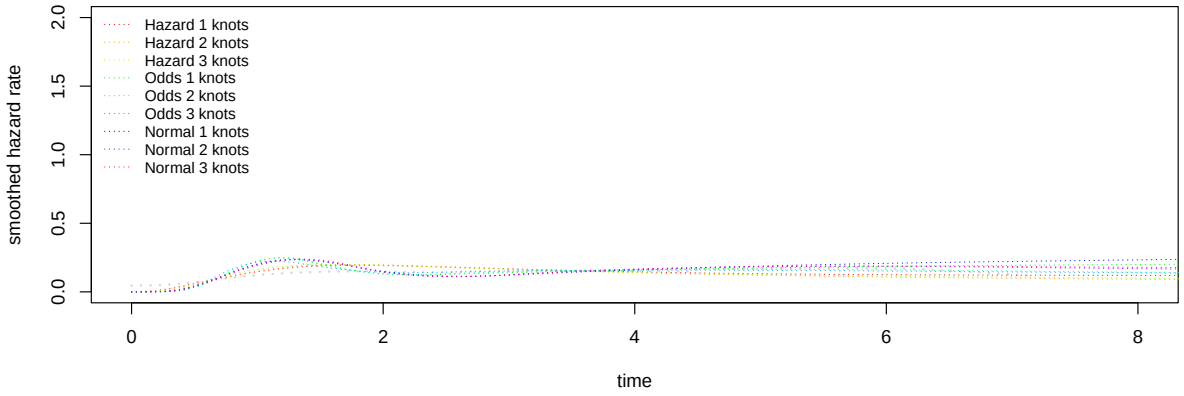
3.2 Shape of the predicted hazard function

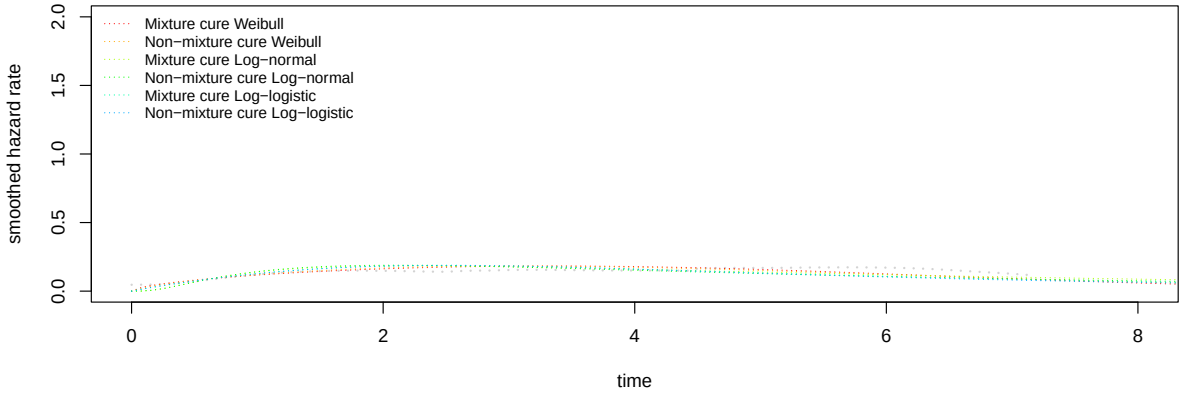


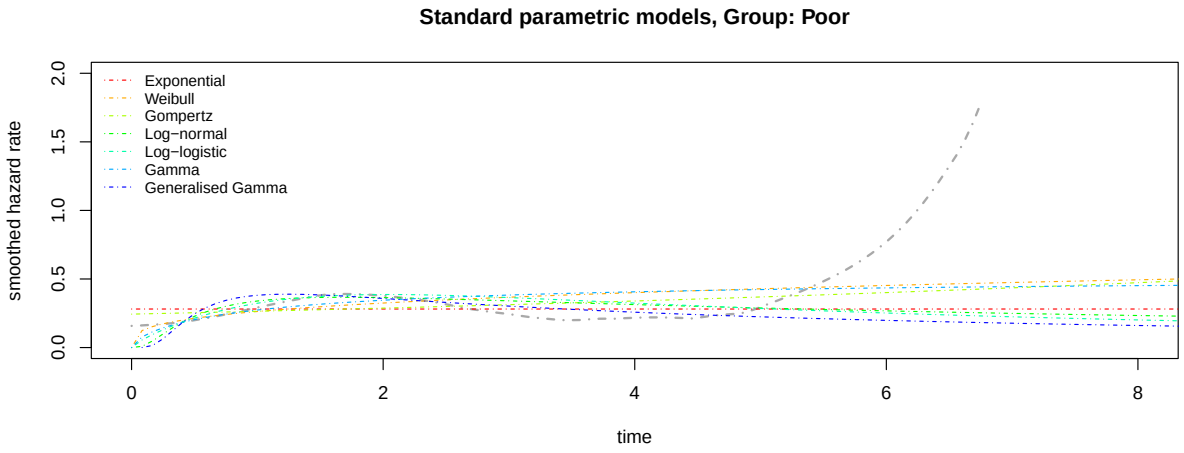


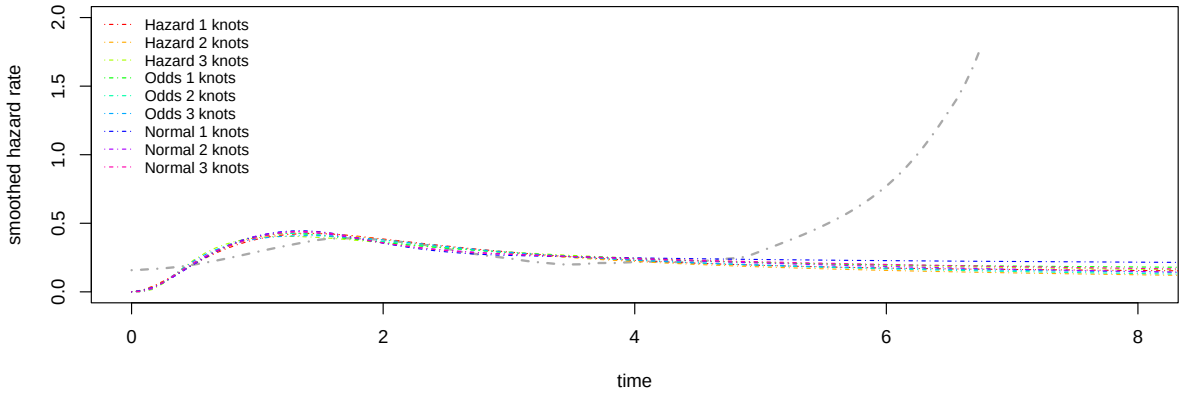


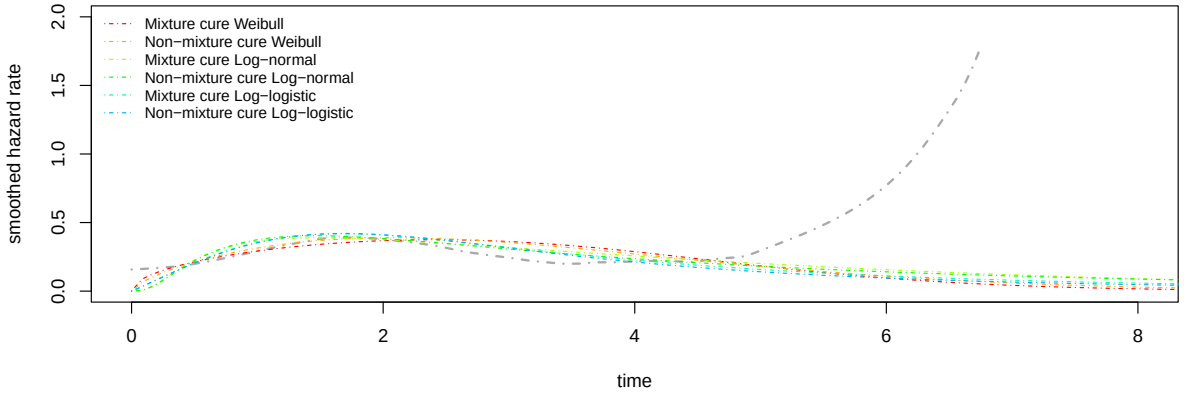

Standard parametric models, Group: Medium
Exponential
Weibull
Gompertz
Log−normal
Log−logistic
Gamma
Generalised Gamma
smoothed hazard rate
0.0
0.5
1.0
1.5
2.0
0
2
4
6
8
time


Spline models, Group: Medium
Hazard 1 knots
Hazard 2 knots
Hazard 3 knots
Odds 1 knots
Odds 2 knots
Odds 3 knots
Normal 1 knots
Normal 2 knots
Normal 3 knots
smoothed hazard rate
0.0
0.5
1.0
1.5
2.0
0
2
4
6
8
time


Cure models, Group: Medium
Mixture cure Weibull
Non−mixture cure Weibull
Mixture cure Log−normal
Non−mixture cure Log−normal
Mixture cure Log−logistic
Non−mixture cure Log−logistic
smoothed hazard rate
0.0
0.5
1.0
1.5
2.0
0
2
4
6
8
time


Standard parametric models, Group: Poor
Exponential
Weibull
Gompertz
Log−normal
Log−logistic
Gamma
Generalised Gamma
smoothed hazard rate
0.0
0.5
1.0
1.5
2.0
0
2
4
6
8
time


Spline models, Group: Poor
Hazard 1 knots
Hazard 2 knots
Hazard 3 knots
Odds 1 knots
Odds 2 knots
Odds 3 knots
Normal 1 knots
Normal 2 knots
Normal 3 knots
smoothed hazard rate
0.0
0.5
1.0
1.5
2.0
0
2
4
6
8
time


Cure models, Group: Poor
Mixture cure Weibull
Non−mixture cure Weibull
Mixture cure Log−normal
Non−mixture cure Log−normal
Mixture cure Log−logistic
Non−mixture cure Log−logistic
smoothed hazard rate
0.0
0.5
1.0
1.5
2.0
0
2
4
6
8
time

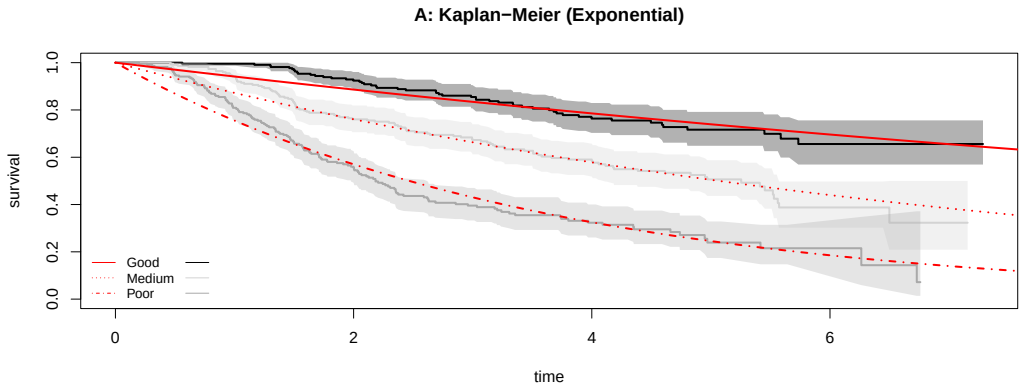
4 Parametric survival models

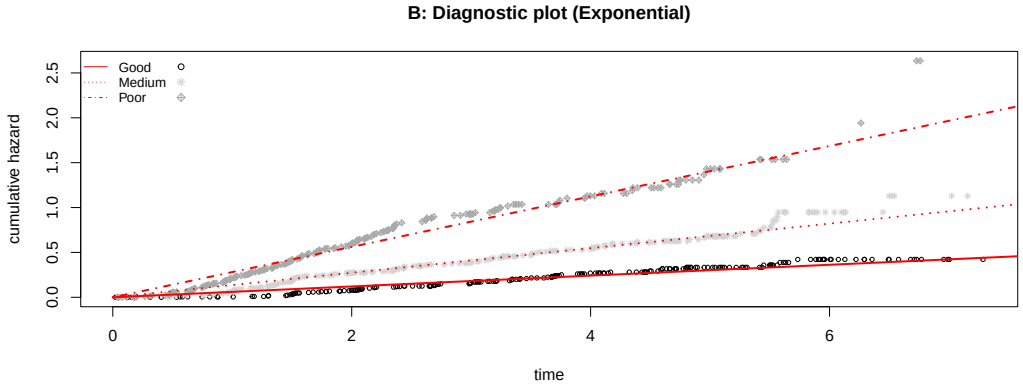
4.1 Standard parametric models

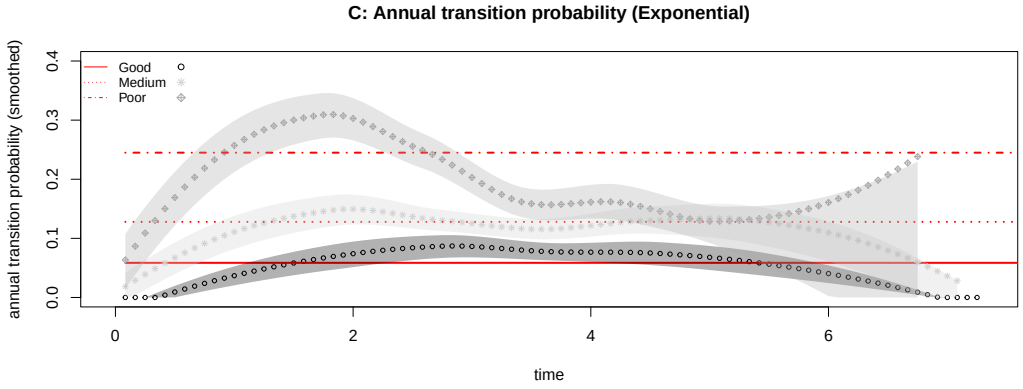
Table 2: Goodness of fit statistics

Model	AIC	BIC
Generalised Gamma	1589	1630
Log-normal	1593	1620
Log-logistic	1609	1636
Gamma	1622	1649
Weibull	1633	1660
Gompertz	1661	1688
Exponential	1668	1682

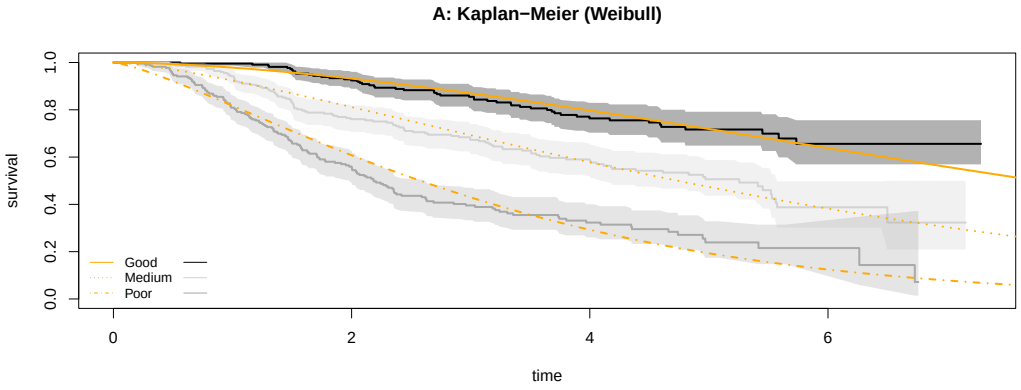
Exponential

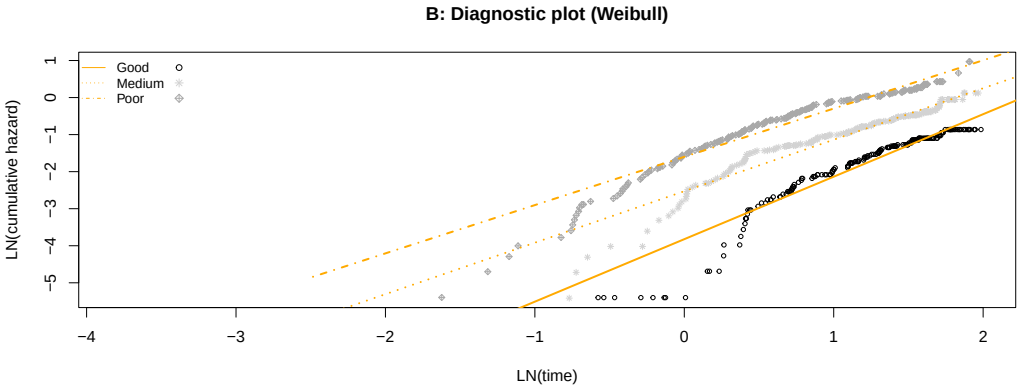


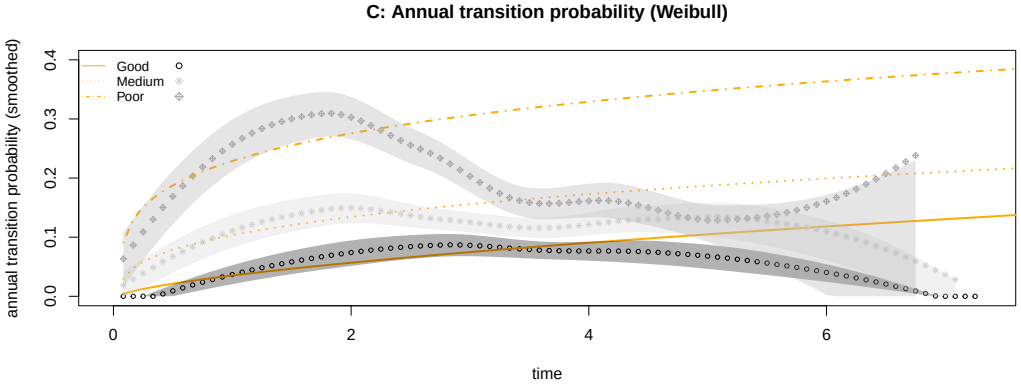




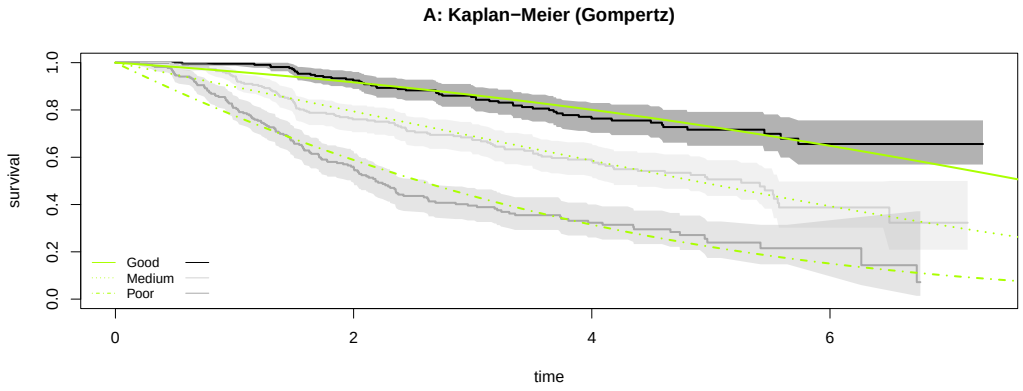
Weibull

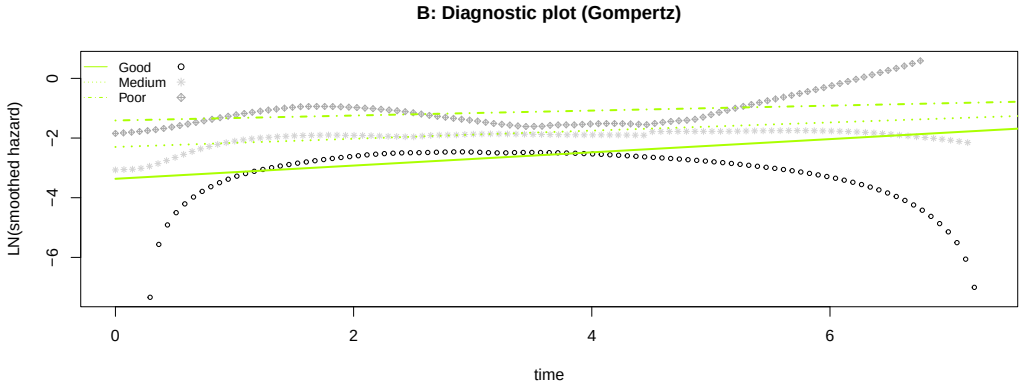

A: Kaplan−Meier (Weibull)
survival
0.0
0.2
0.4
0.6
0.8
1.0
Good
Medium
Poor
0
2
4
6
time

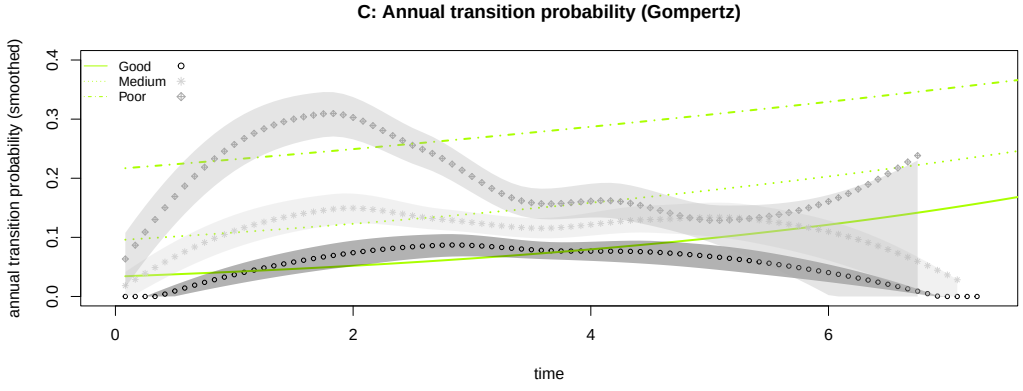

B: Diagnostic plot (Weibull)
LN(cumulative hazard)
−5
−4
−3
−2
−1
0
1
Good
Medium
Poor
−4
−3
−2
−1
0
1
2
LN(time)


C: Annual transition probability (Weibull)
annual transition probability (smoothed)
0.0
0.1
0.2
0.3
0.4
Good
Medium
Poor
0
2
4
6
time

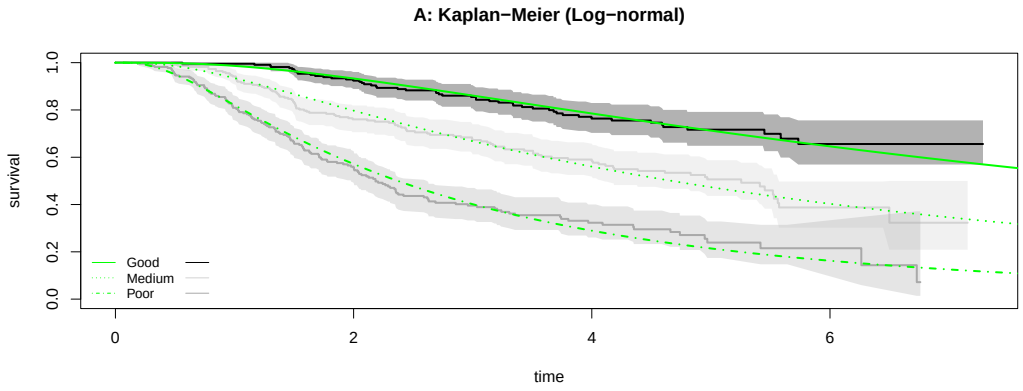
Gompertz

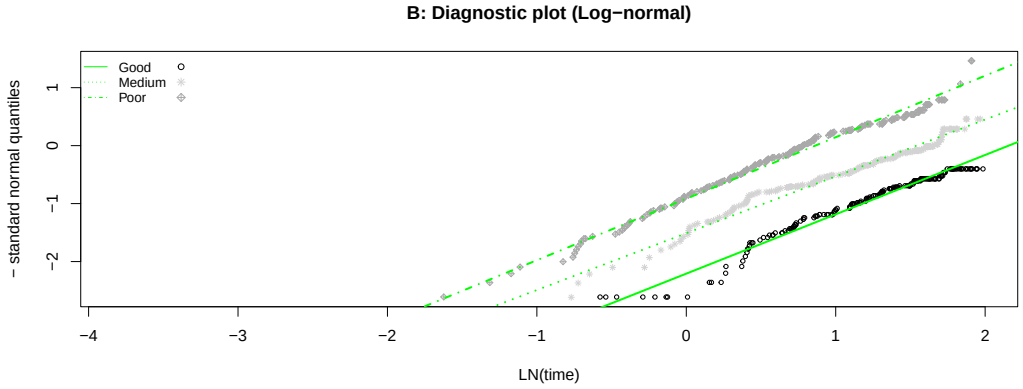

A: Kaplan−Meier (Gompertz)
survival
0.0
0.2
0.4
0.6
0.8
1.0
Good
Medium
Poor
0
2
4
6
time

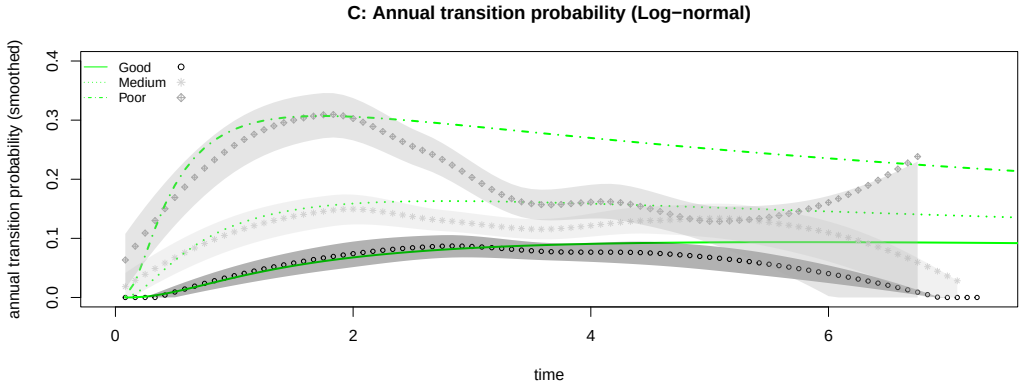

B: Diagnostic plot (Gompertz)
LN(smoothed hazard)
0
−2
−4
−6
Good
Medium
Poor
0
2
4
6
time


C: Annual transition probability (Gompertz)
annual transition probability (smoothed)
0.0
0.1
0.2
0.3
0.4
Good
Medium
Poor
0
2
4
6
time

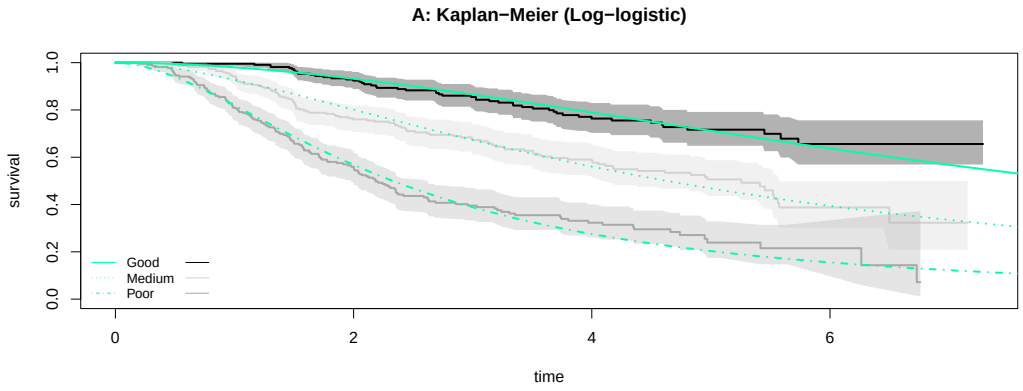
Log-normal

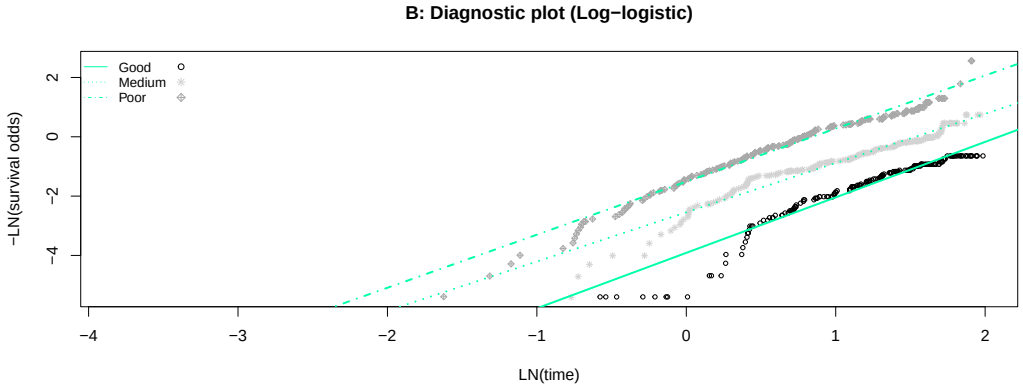

A: Kaplan−Meier (Log−normal)
survival
0.0
0.2
0.4
0.6
0.8
1.0
Good
Medium
Poor
0
2
4
6
time

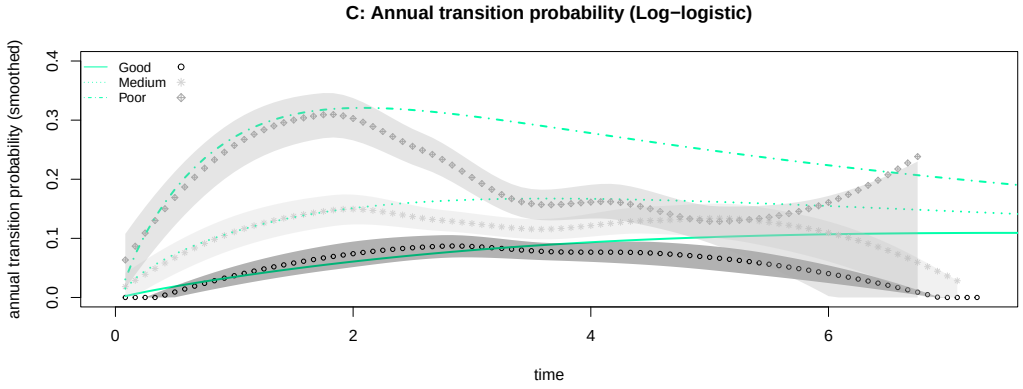

B: Diagnostic plot (Log−normal)
− standard normal quantiles
−2
−1
0
1
Good
Medium
Poor
−4
−3
−2
−1
0
1
2
LN(time)


C: Annual transition probability (Log−normal)
annual transition probability (smoothed)
0.0
0.1
0.2
0.3
0.4
Good
Medium
Poor
0
2
4
6
time

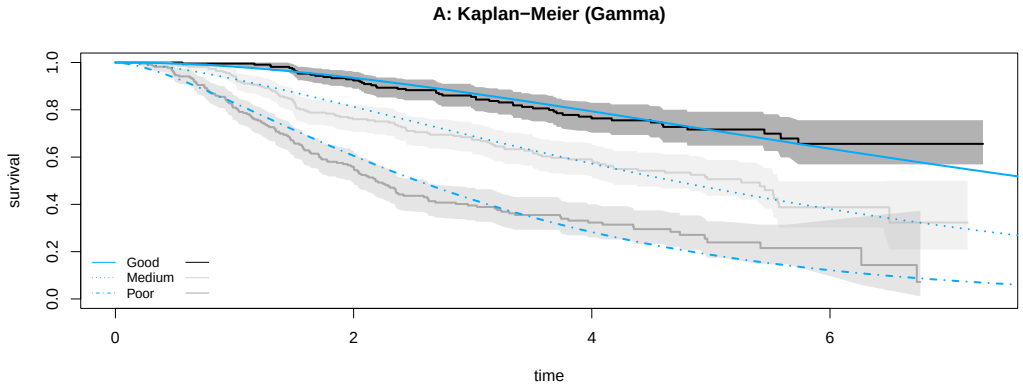
Log-logistic

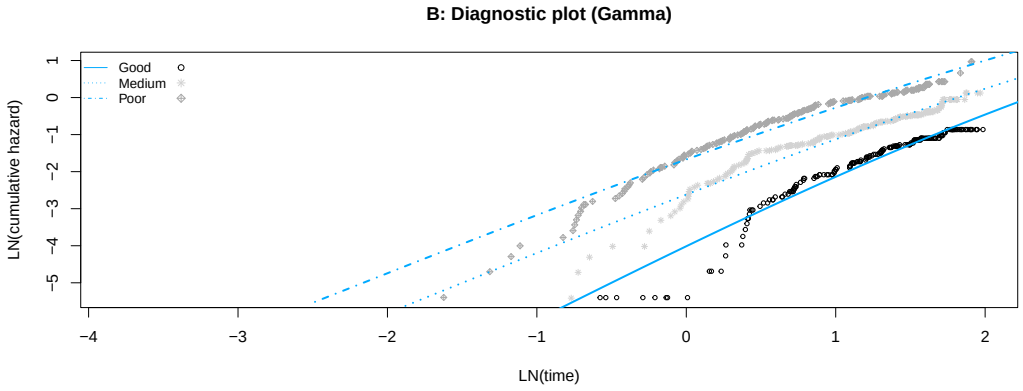


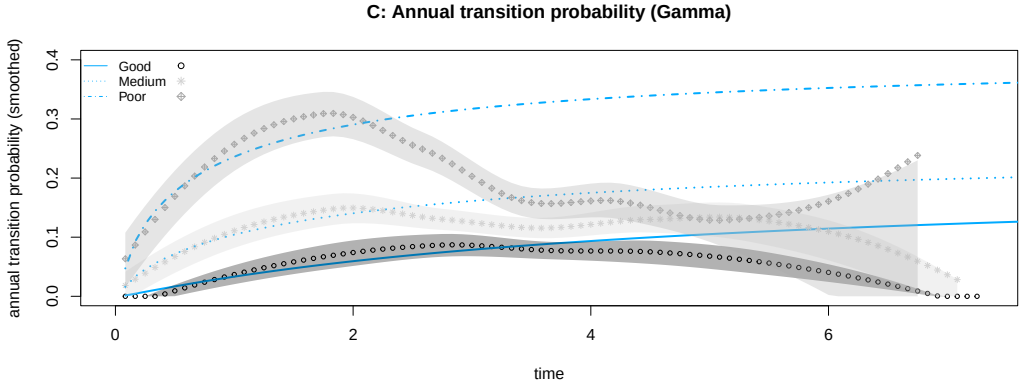




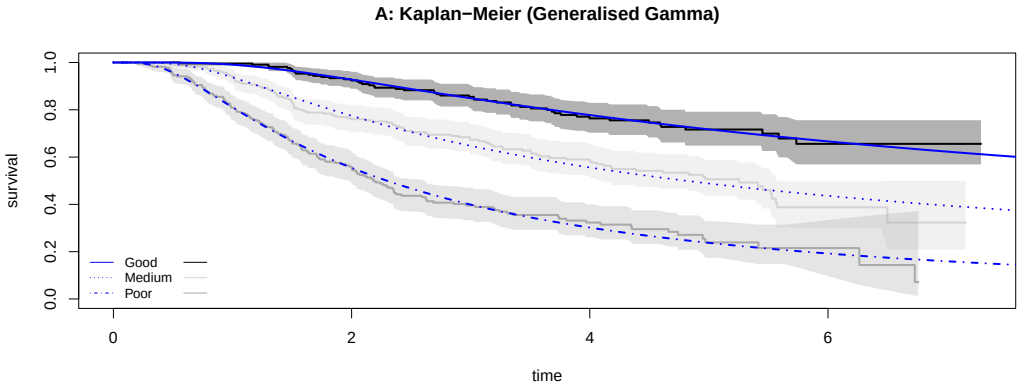
Gamma

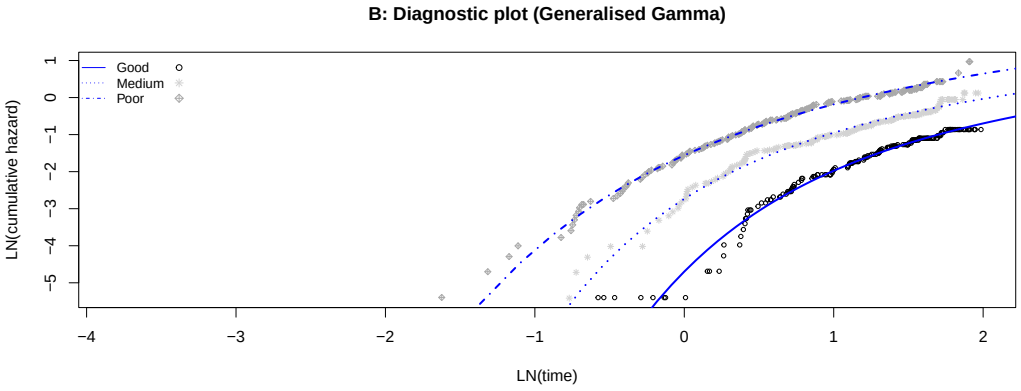

A: Kaplan−Meier (Gamma)
survival
0.0
0.2
0.4
0.6
0.8
1.0
Good
Medium
Poor
0
2
4
6
time

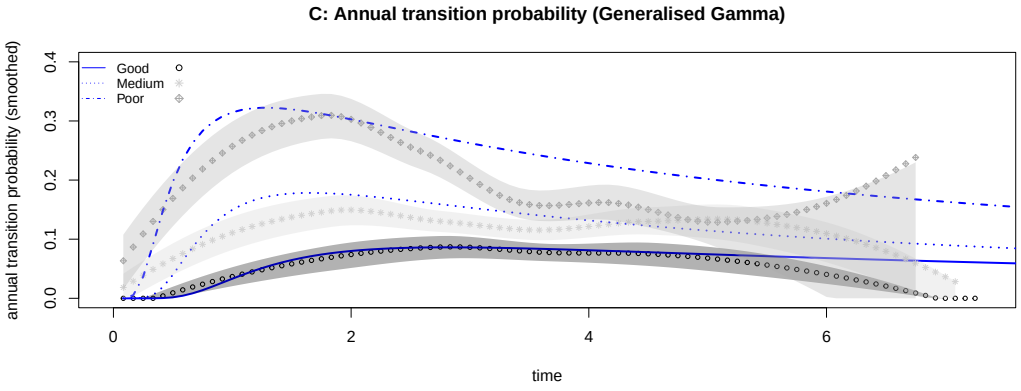

B: Diagnostic plot (Gamma)
LN(cumulative hazard)
−5
−4
−3
−2
−1
0
1
Good
Medium
Poor
−4
−3
−2
−1
0
1
2
LN(time)


C: Annual transition probability (Gamma)
annual transition probability (smoothed)
0.0
0.1
0.2
0.3
0.4
Good
Medium
Poor
0
2
4
6
time

Generalised Gamma





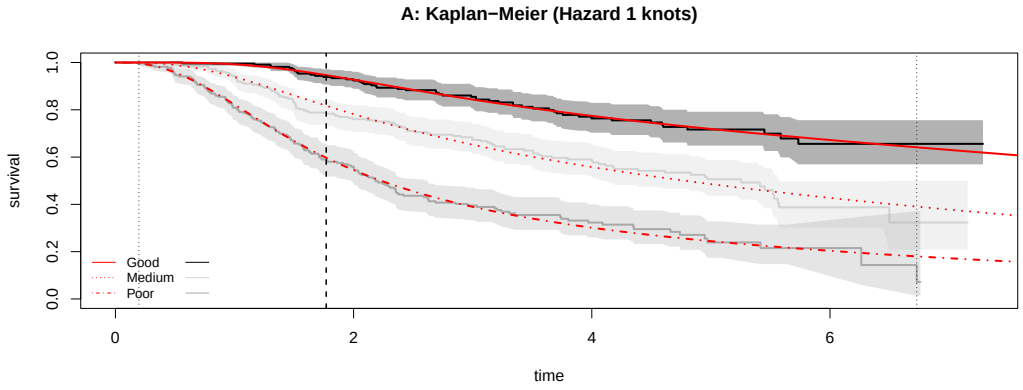


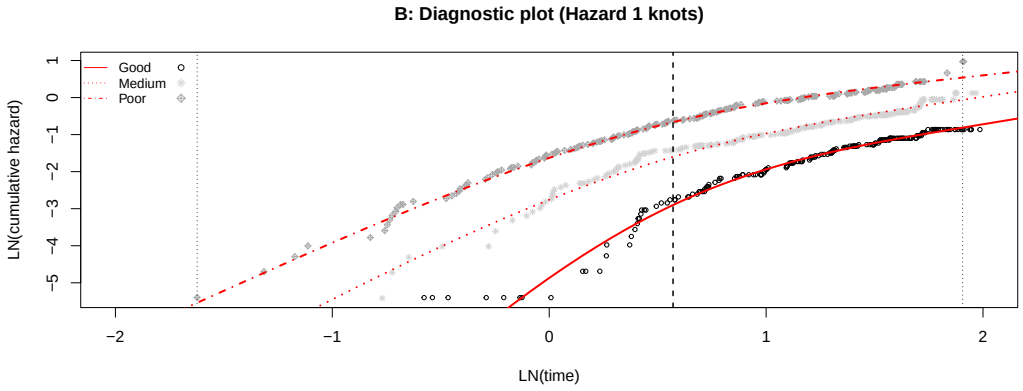
4.2 Parametric natural cubic spline models

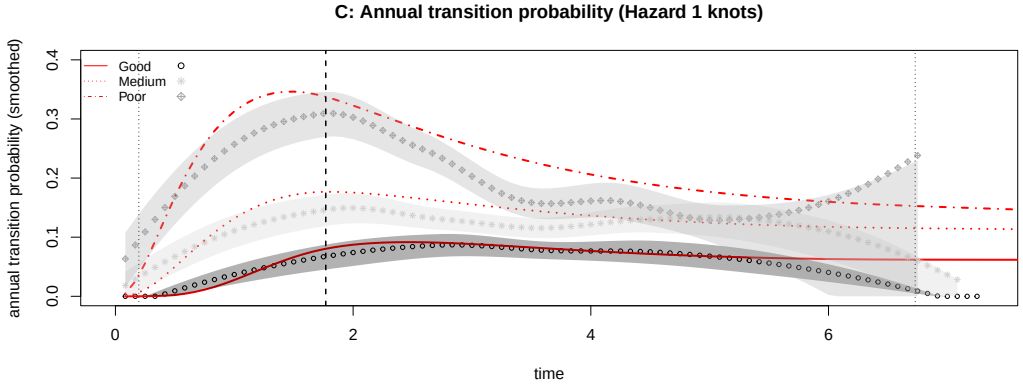
Table 3: Goodness of fit statistics (including standard parametric and spline models)

Model	AIC	BIC
Odds 1 knots	1586	1640
Odds 2 knots	1587	1642
Hazard 3 knots	1588	1628
Odds 3 knots	1588	1643
Generalised Gamma	1589	1630
Hazard 1 knots	1589	1630
Normal 3 knots	1590	1658
Normal 1 knots	1590	1658
Hazard 2 knots	1590	1631
Normal 2 knots	1591	1659
Log-normal	1593	1620
Log-logistic	1609	1636
Gamma	1622	1649
Weibull	1633	1660
Gompertz	1661	1688
Exponential	1668	1682

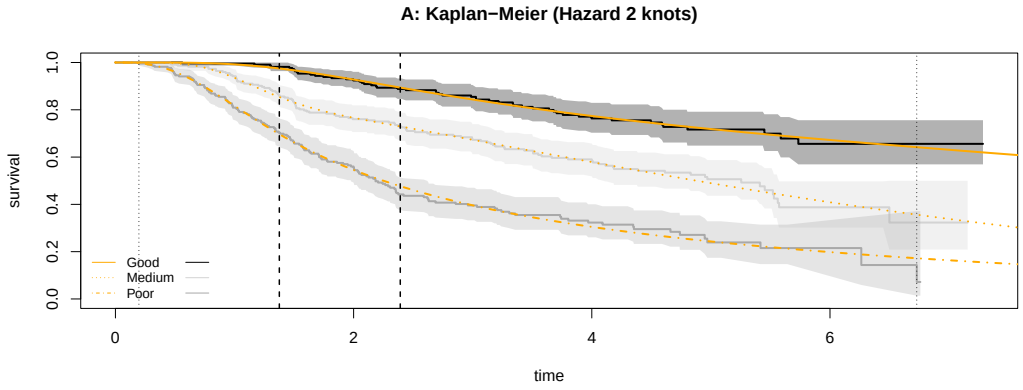
Hazard 1 knots

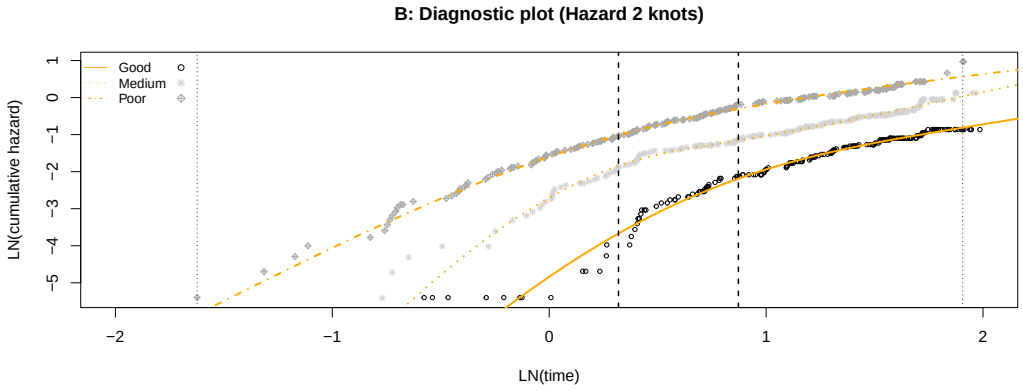


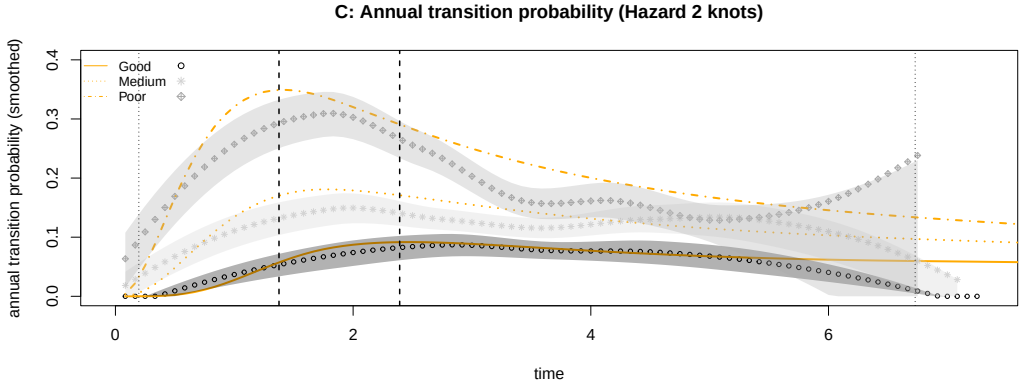




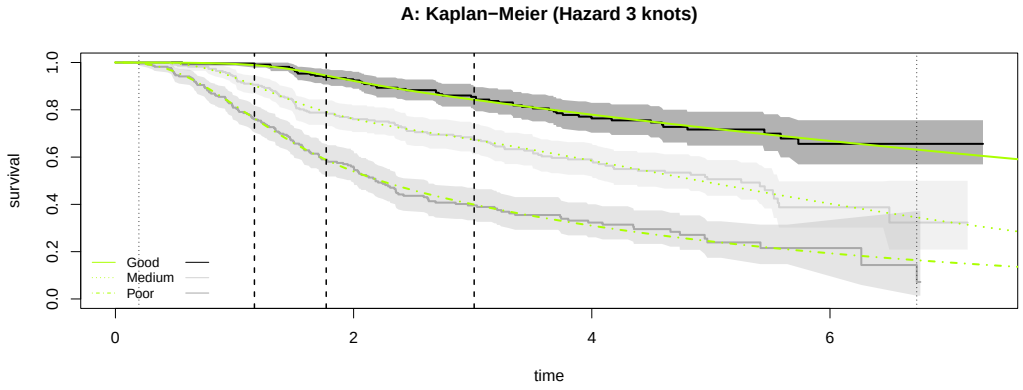
Hazard 2 knots

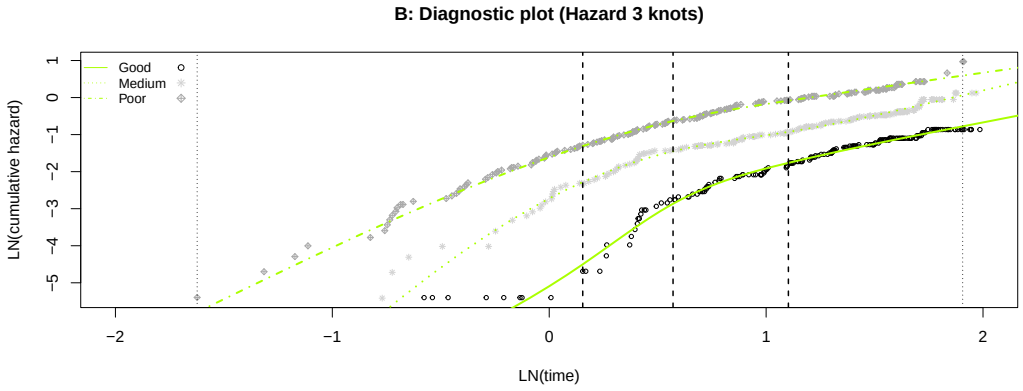


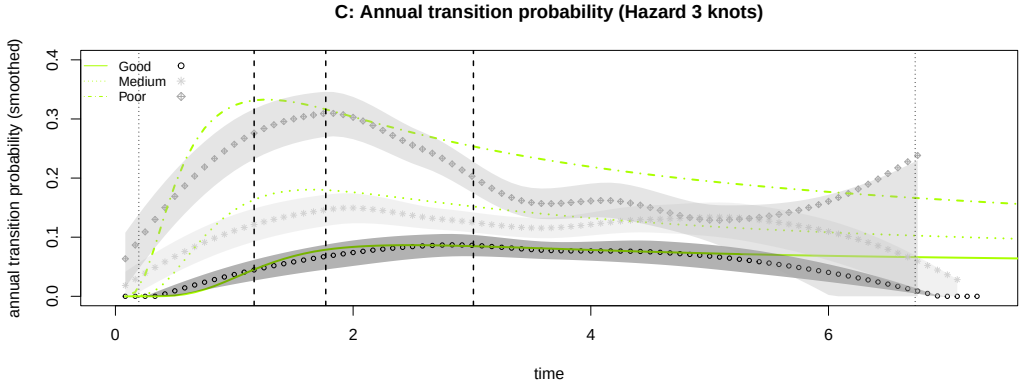




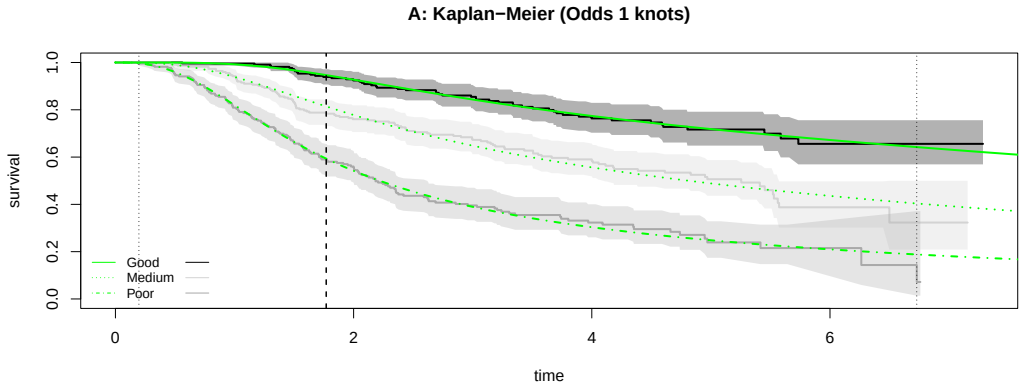
Hazard 3 knots

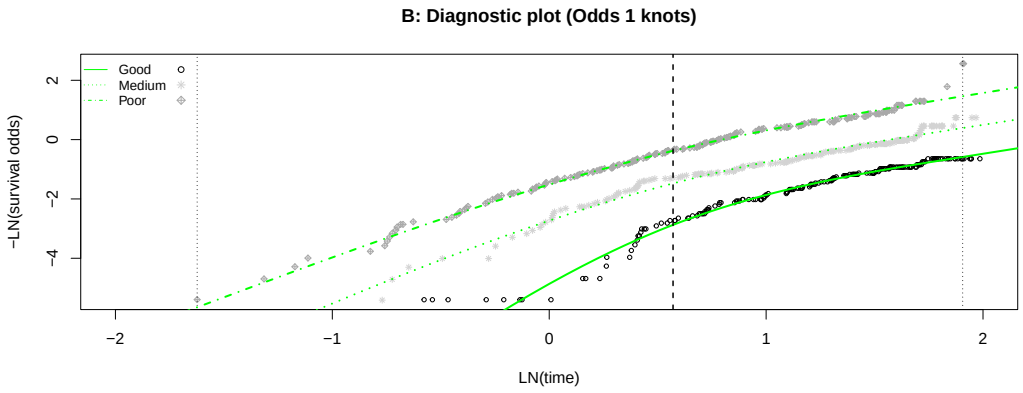


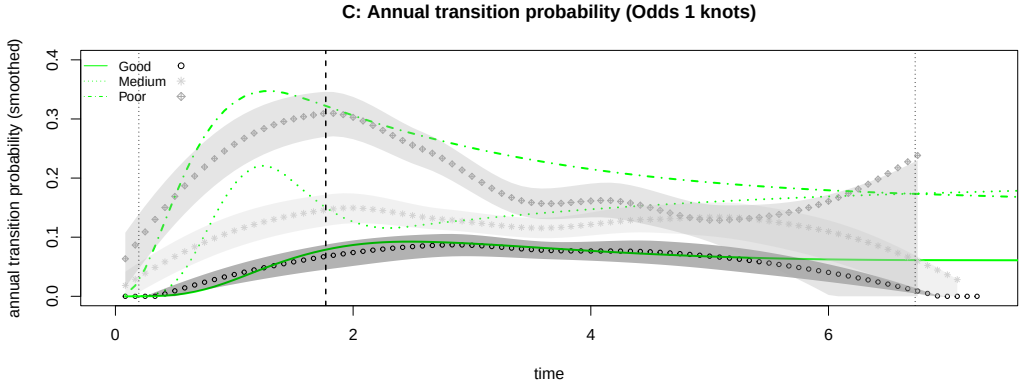




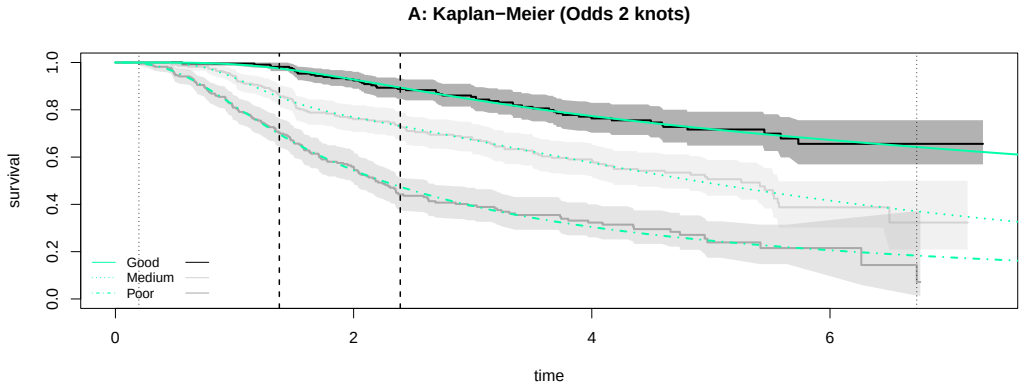
Odds 1 knots

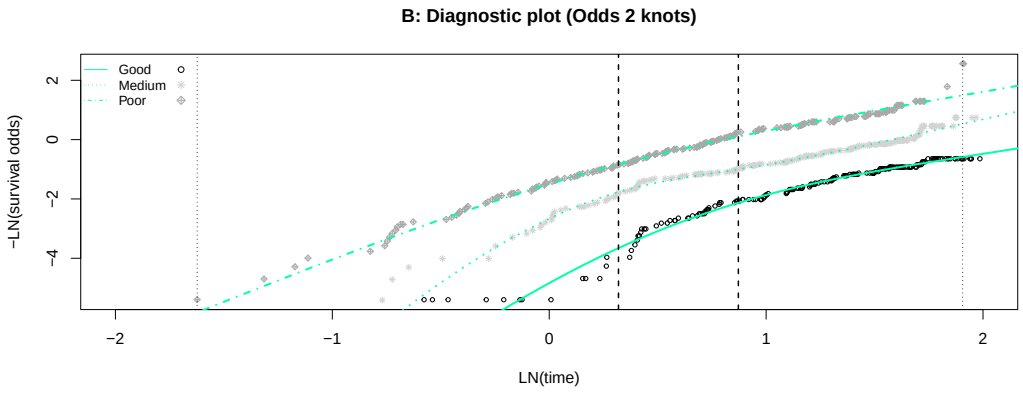

A: Kaplan−Meier (Odds 1 knots)
survival
0.0
0.2
0.4
0.6
0.8
1.0
Good
Medium
Poor
0
2
4
6
time

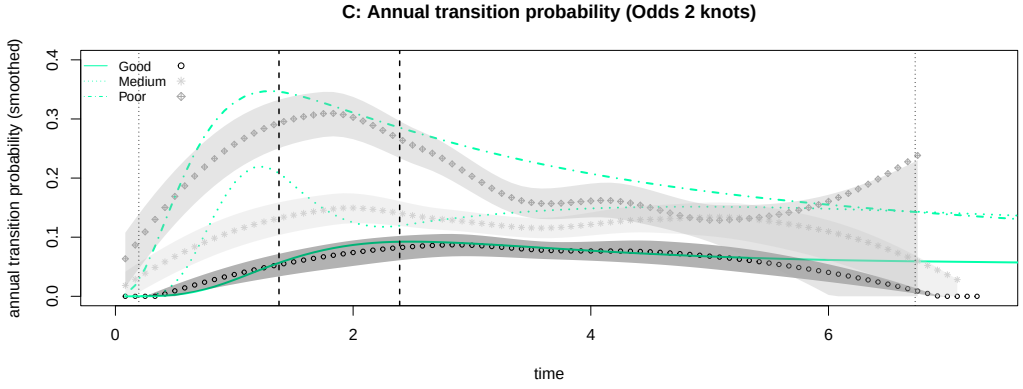

B: Diagnostic plot (Odds 1 knots)
−LN(survival odds)
−4
−2
0
2
Good
Medium
Poor
−2
−1
0
1
2
LN(time)


C: Annual transition probability (Odds 1 knots)
annual transition probability (smoothed)
0.0
0.1
0.2
0.3
0.4
Good
Medium
Poor
0
2
4
6
time

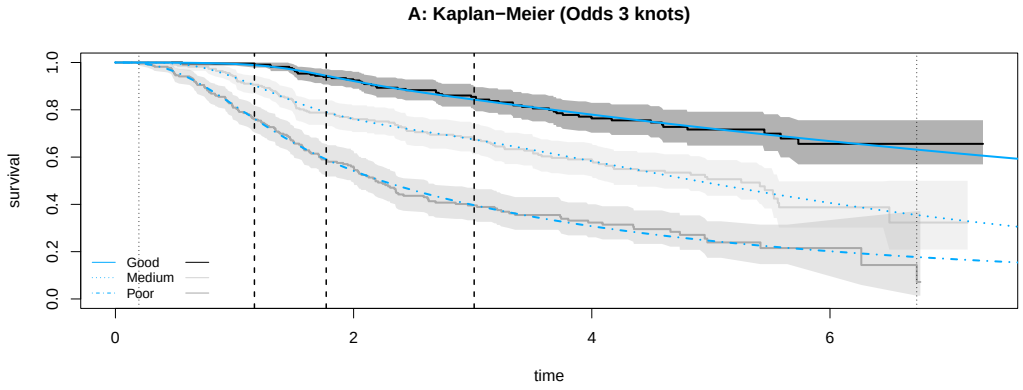
Odds 2 knots

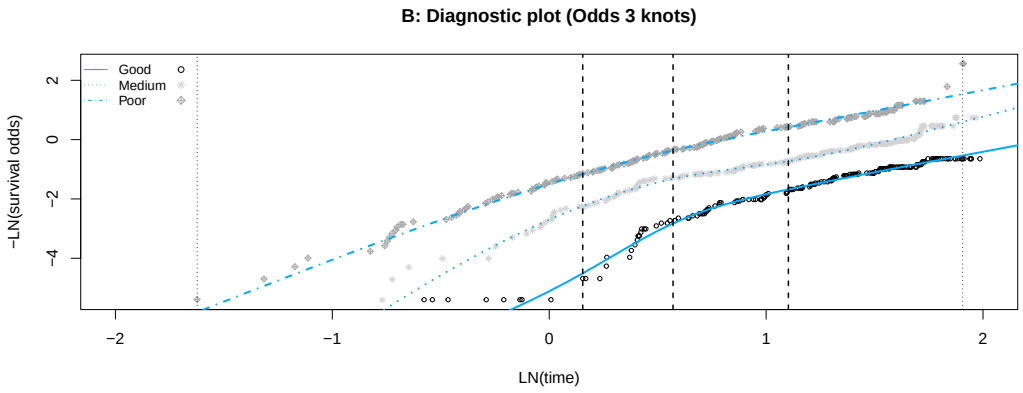

A: Kaplan−Meier (Odds 2 knots)
survival
0.0
0.2
0.4
0.6
0.8
1.0
Good
Medium
Poor
0
2
4
6
time

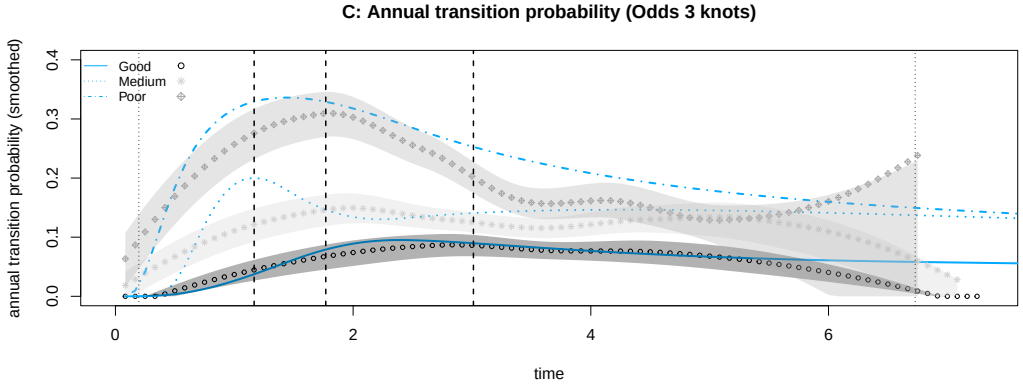

B: Diagnostic plot (Odds 2 knots)
−LN(survival odds)
−4
−2
0
2
Good
Medium
Poor
−2
−1
0
1
2
LN(time)


C: Annual transition probability (Odds 2 knots)
annual transition probability (smoothed)
0.0
0.1
0.2
0.3
0.4
Good
Medium
Poor
0
2
4
6
time

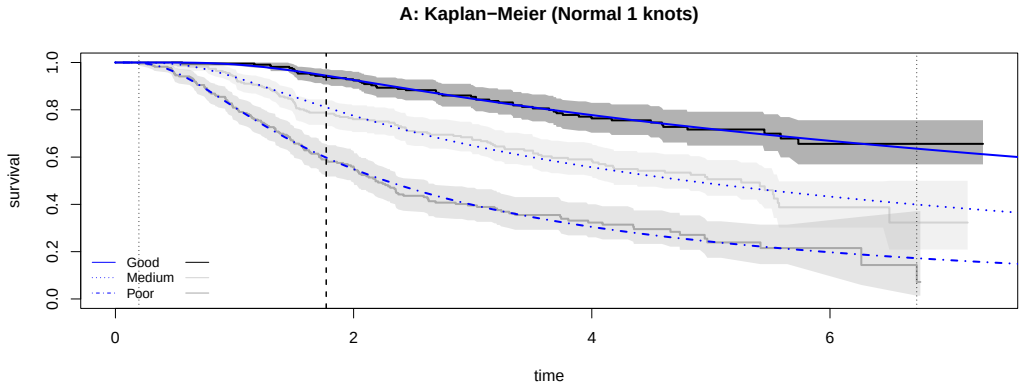
Odds 3 knots

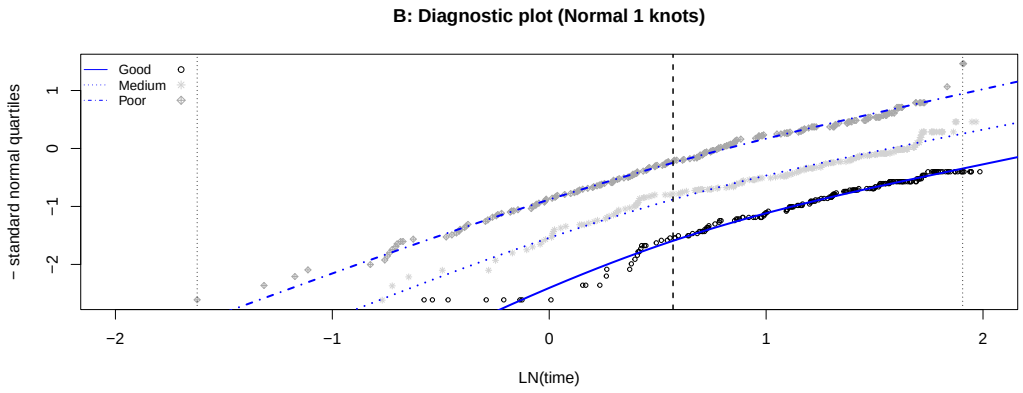

A: Kaplan−Meier (Odds 3 knots)
survival
0.0
0.2
0.4
0.6
0.8
1.0
Good
Medium
Poor
0
2
4
6
time

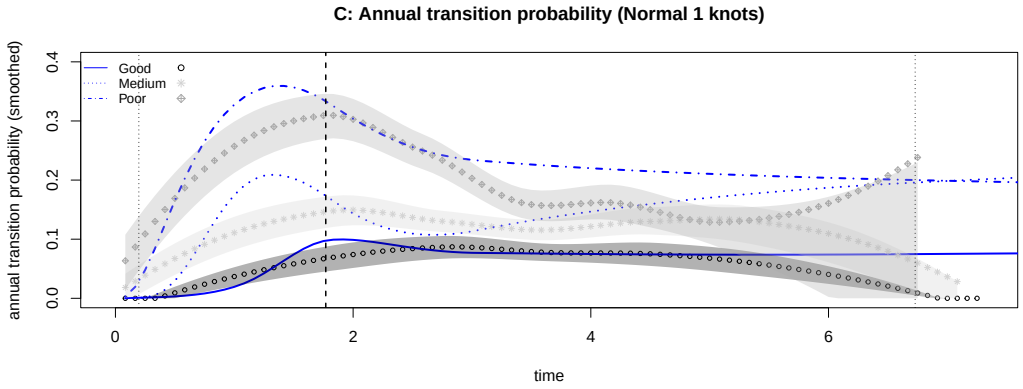

B: Diagnostic plot (Odds 3 knots)
−LN(survival odds)
−4
−2
0
2
Good
Medium
Poor
−2
−1
0
1
2
LN(time)


C: Annual transition probability (Odds 3 knots)
annual transition probability (smoothed)
0.0
0.1
0.2
0.3
0.4
Good
Medium
Poor
0
2
4
6
time

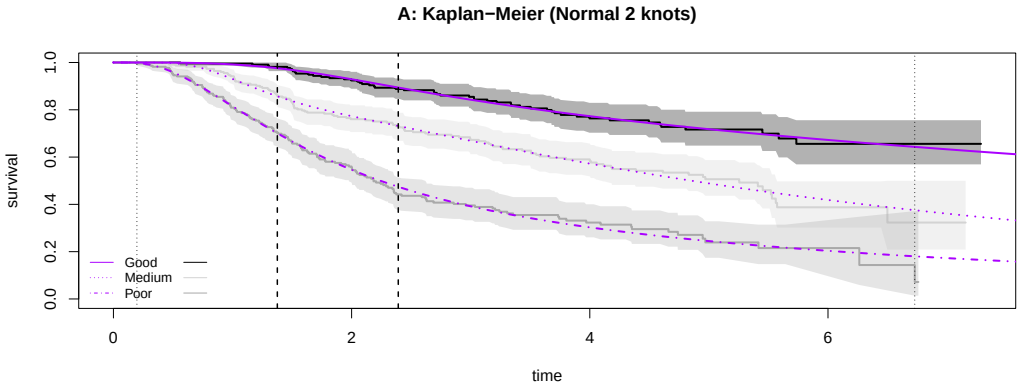
Normal 1 knots

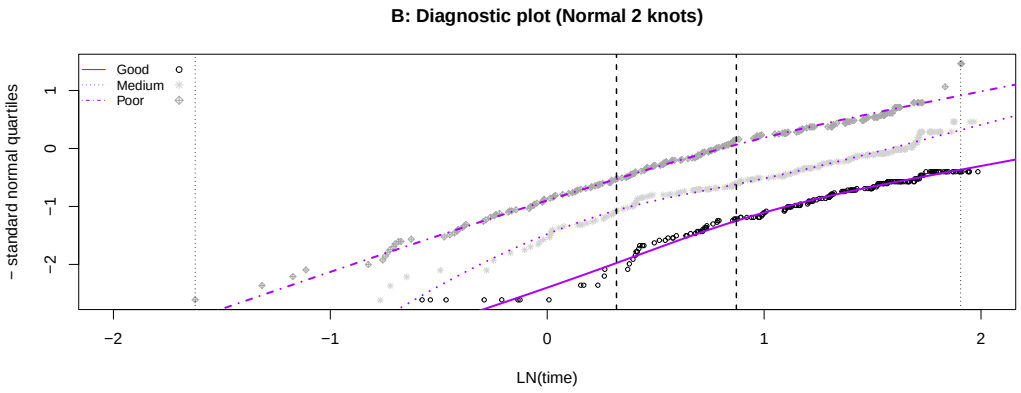


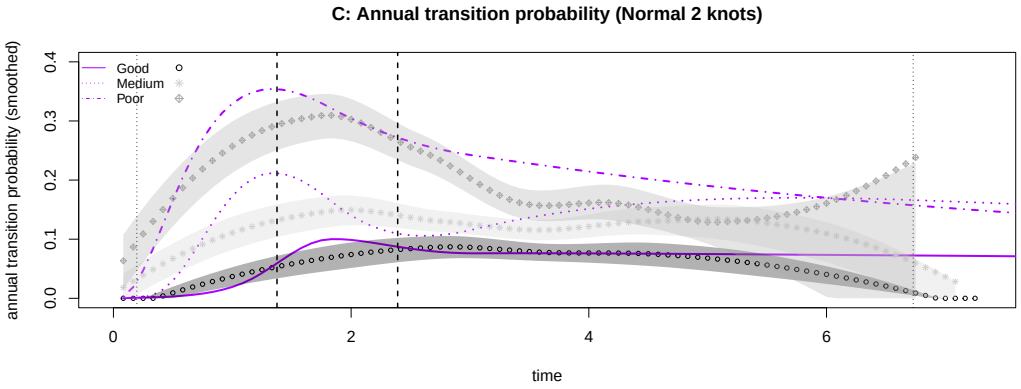




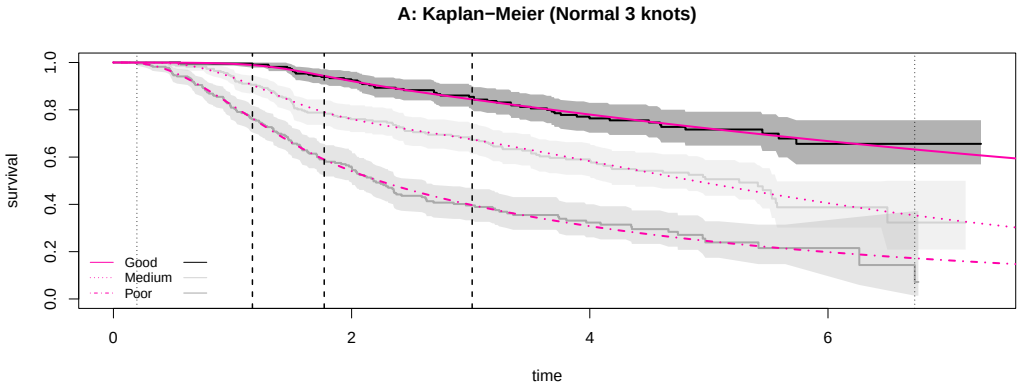
Normal 2 knots

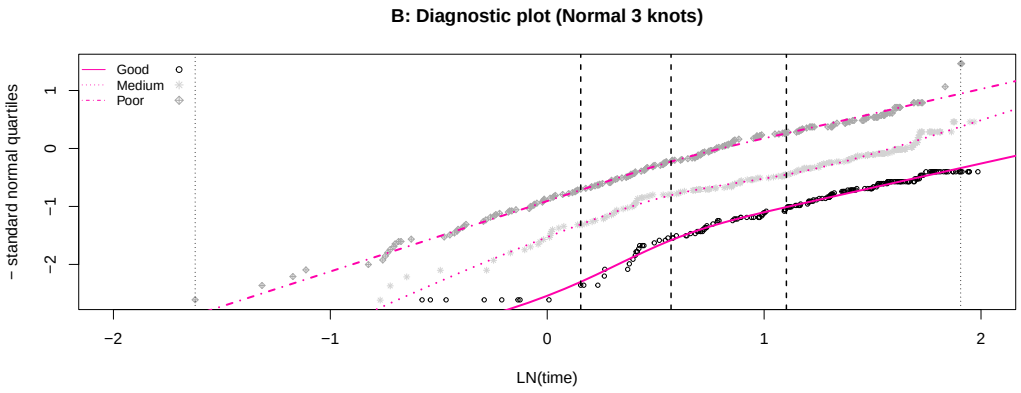


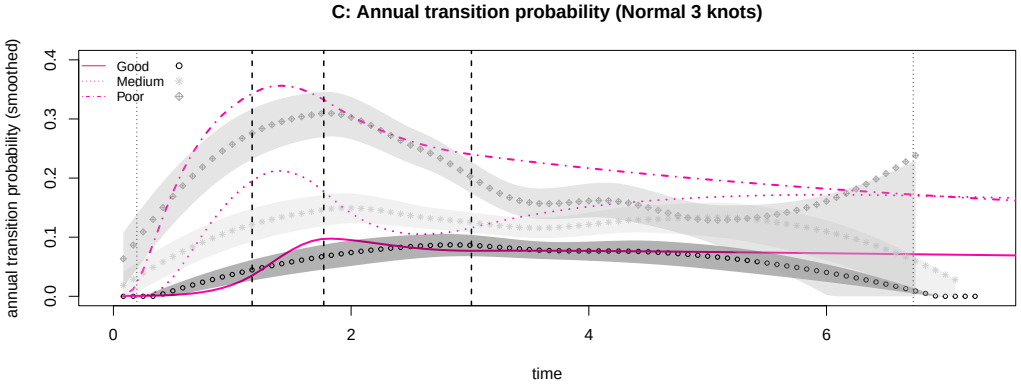




Normal 3 knots







4.3 Parametric (non-)mixture cure models

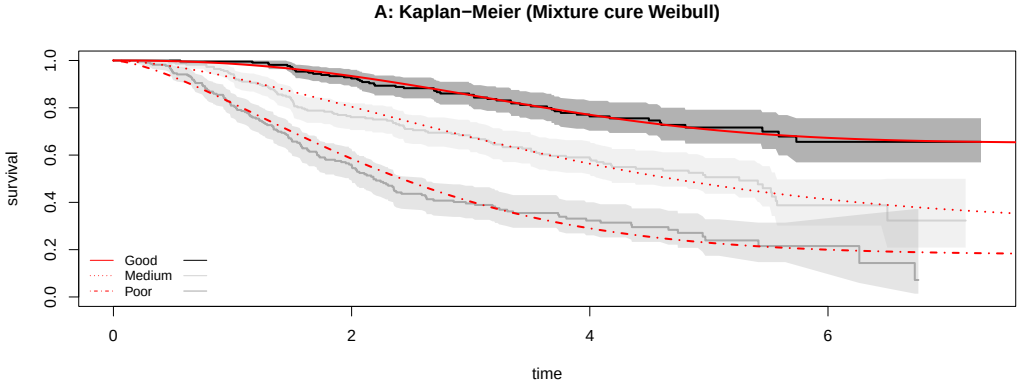
Table 4: Goodness of fit statistics (including standard parametric and cure models)

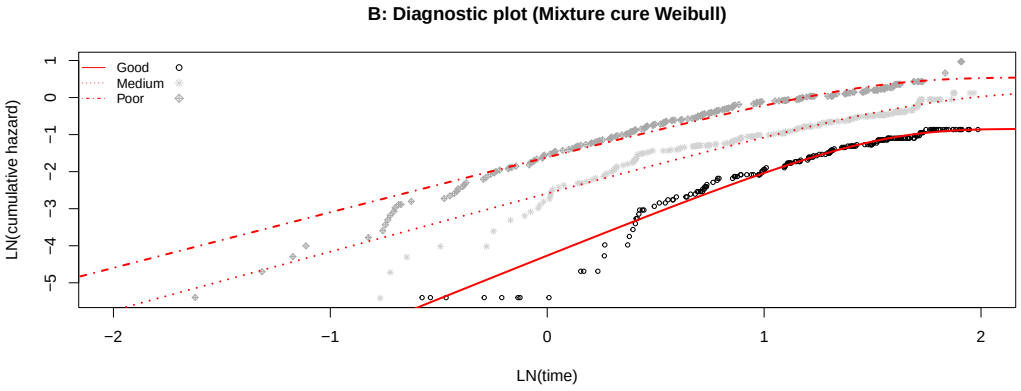
Model	AIC
Generalised Gamma	1589
Log-normal	1593
Mixture cure Log-normal	1594
Non-mixture cure Log-normal	1594
Mixture cure Log-logistic	1604
Non-mixture cure Log-logistic	1606
Log-logistic	1609
Non-mixture cure Weibull	1615
Gamma	1622
Mixture cure Weibull	1623
Weibull	1633
Gompertz	1661
Exponential	1668

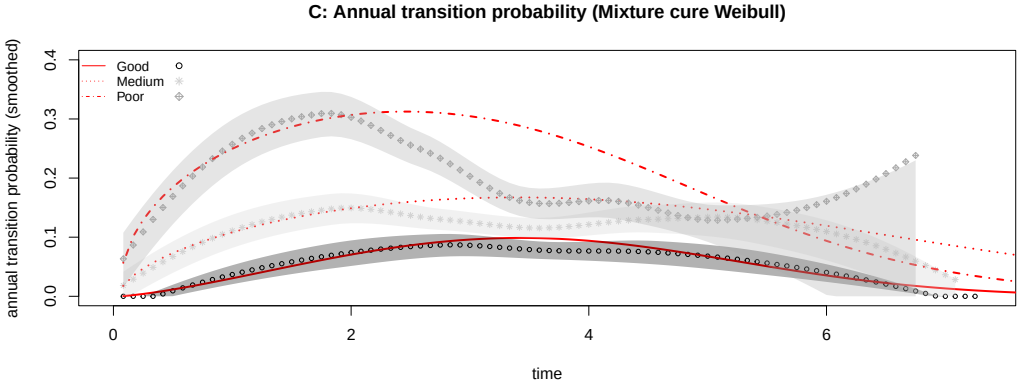
Table 5: Cure proportions per group (lower and upper 95CI)

Model	Good	Medium	Poor
Mixture cure Weibull	65% (54%–75%)	31% (15%–53%)	18% (10%–29%)
Non-mixture cure Weibull	65% (53%–75%)	30% (13%–55%)	17% (9%–29%)
Mixture cure Log-normal	57% (35%–77%)	19% (3%–66%)	11% (3%–35%)
Non-mixture cure Log-normal	56% (33%–77%)	20% (5%–57%)	10% (3%–30%)
Mixture cure Log-logistic	60% (45%–74%)	23% (7%–54%)	14% (6%–30%)
Non-mixture cure Log-logistic	60% (45%–74%)	25% (10%–51%)	15% (8%–28%)

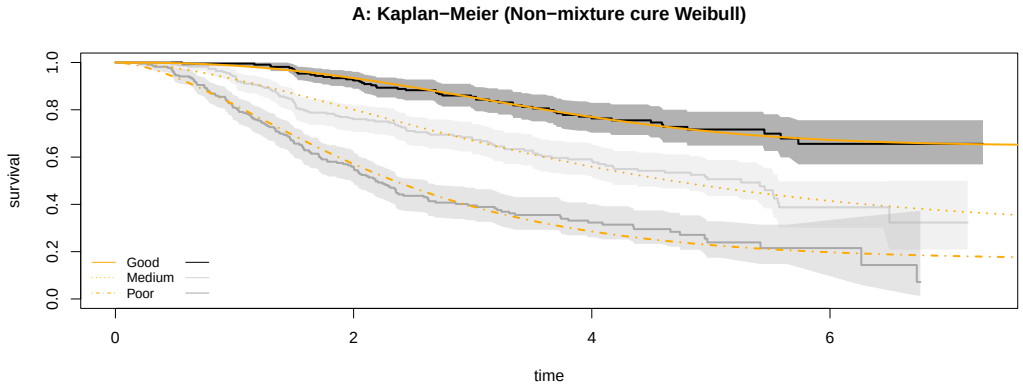
Mixture cure Weibull

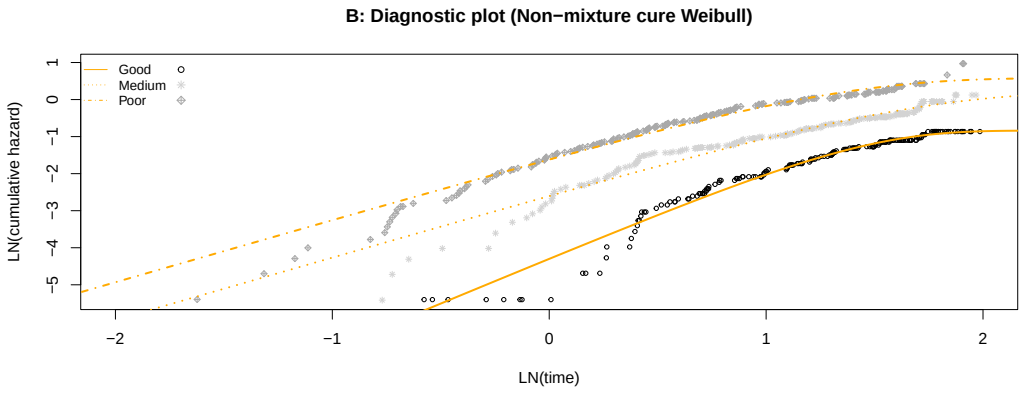


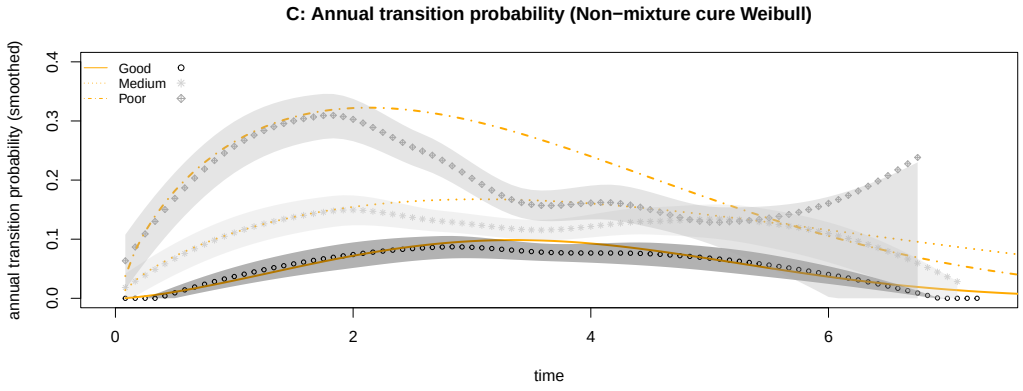




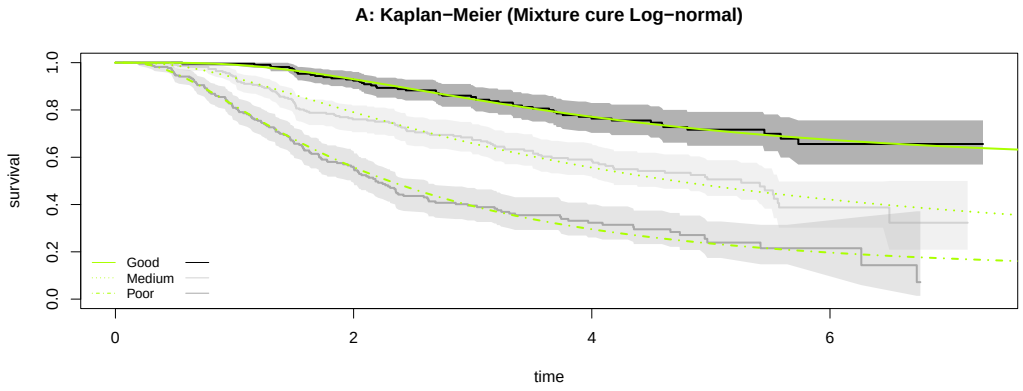
Non-mixture cure Weibull

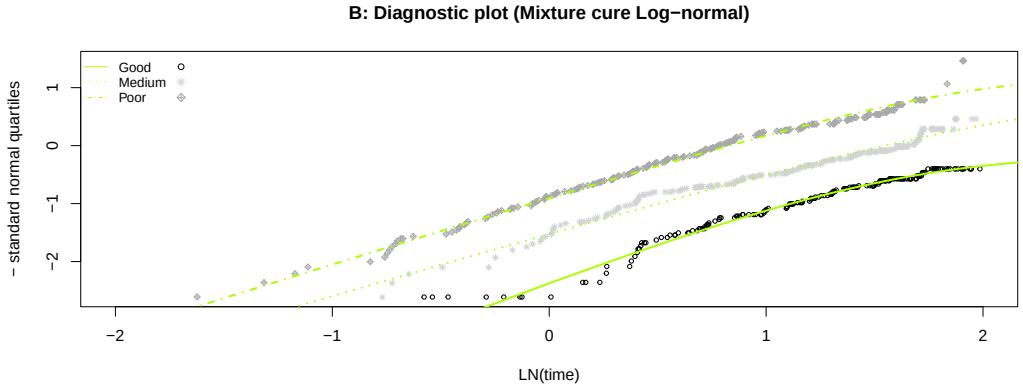


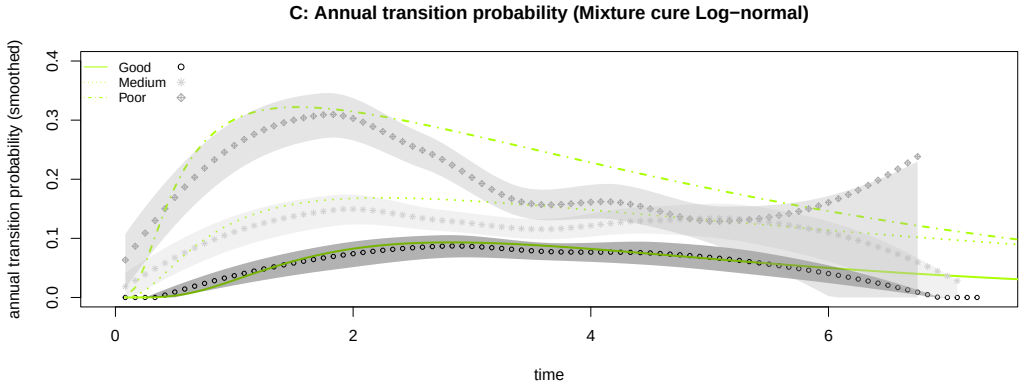




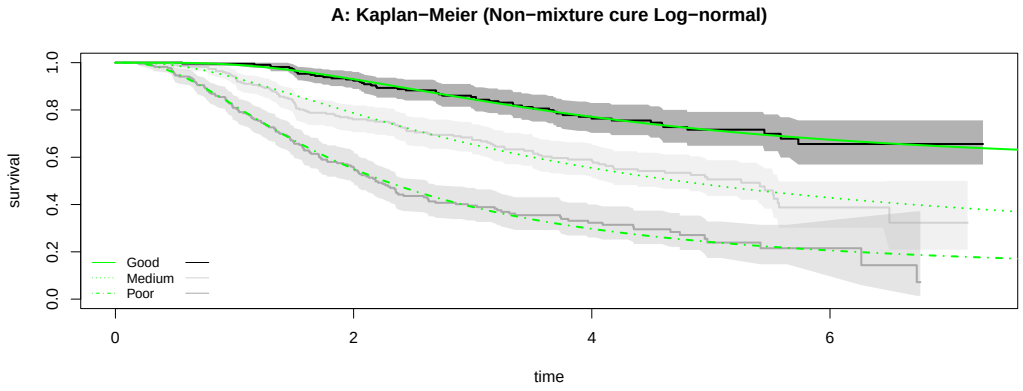
Mixture cure Log-normal

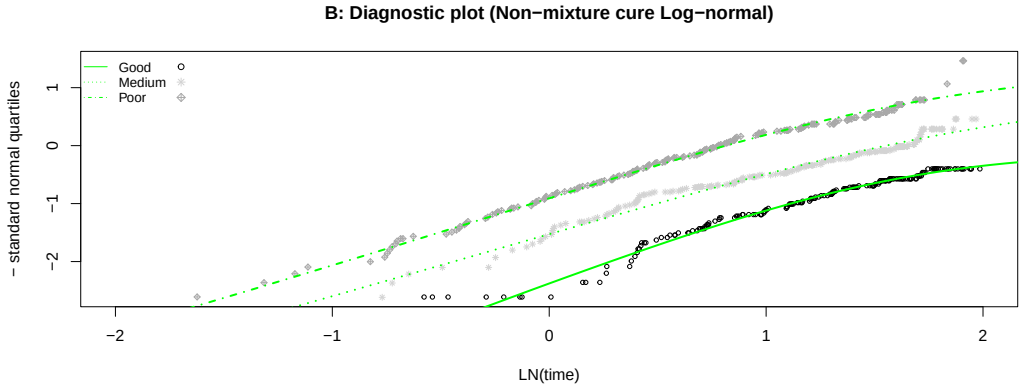


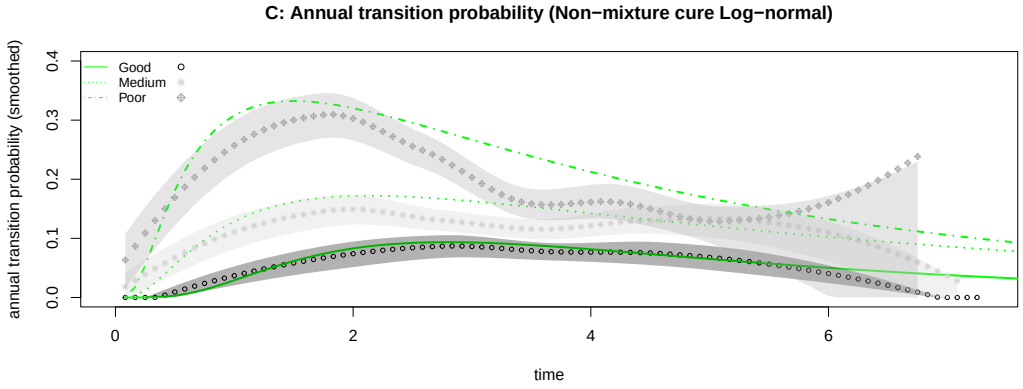




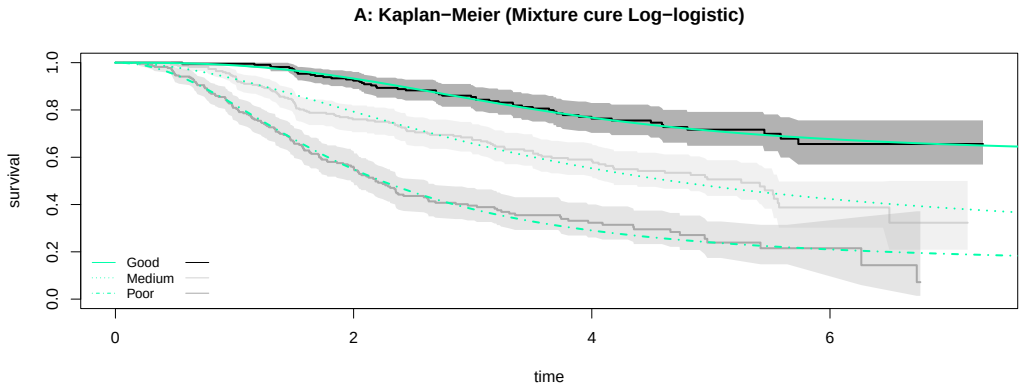
Non-mixture cure Log-normal

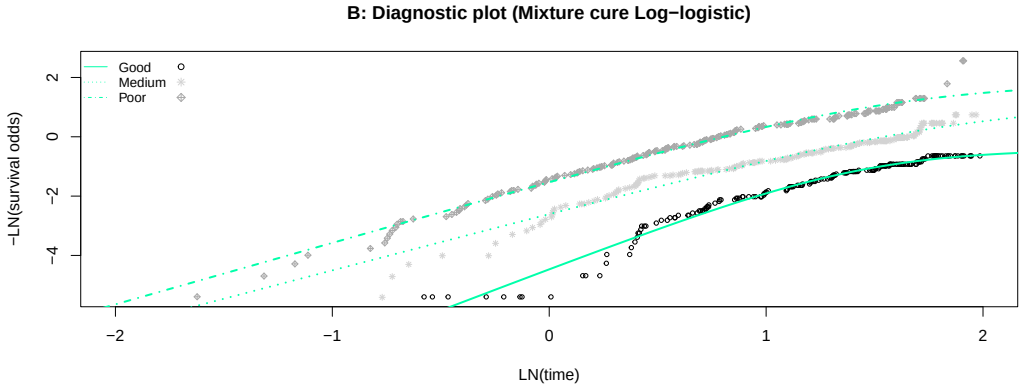


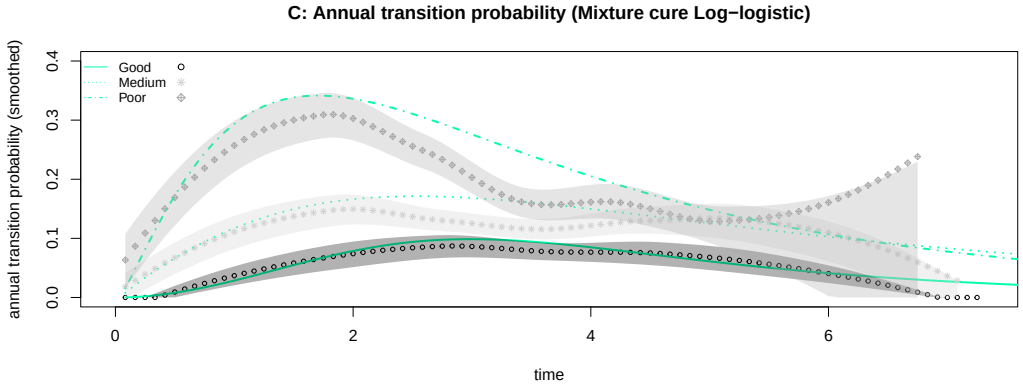




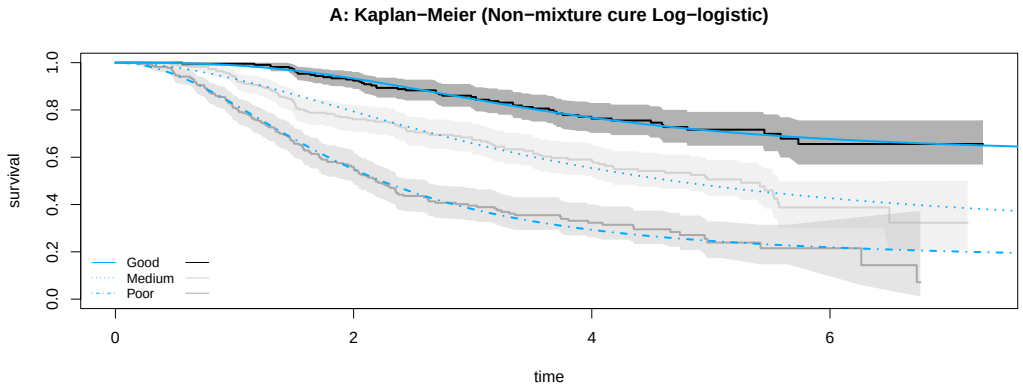
Mixture cure Log-logistic

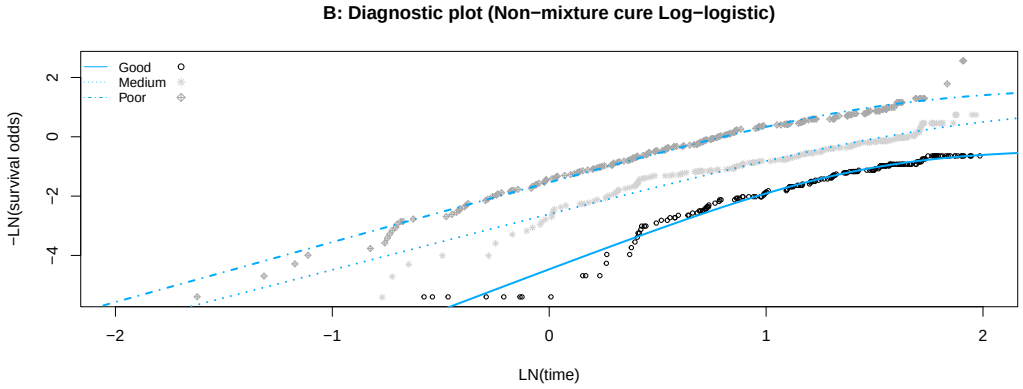


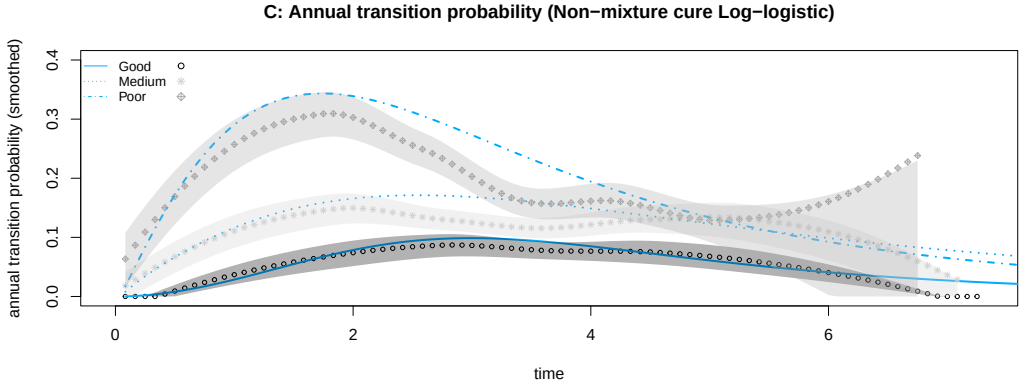




Non-mixture cure Log-logistic

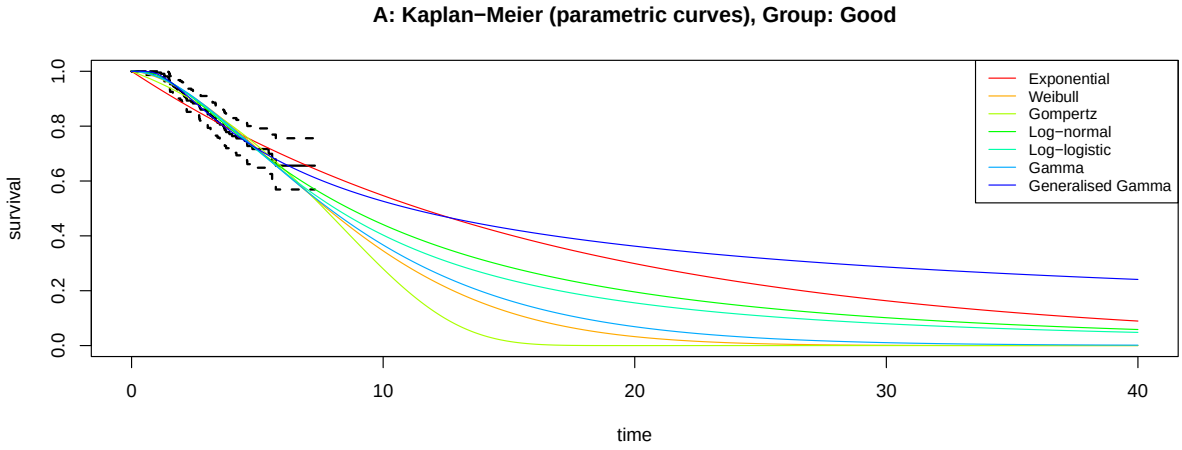


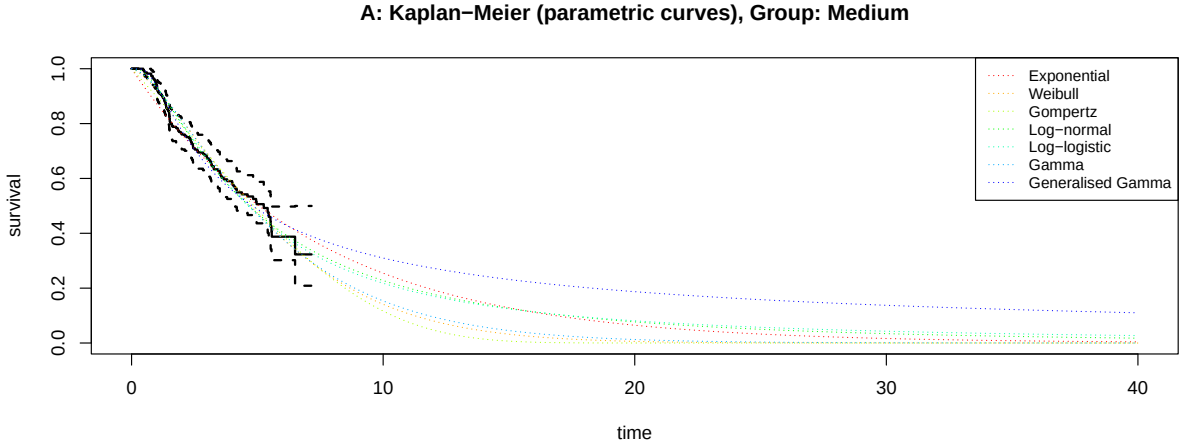


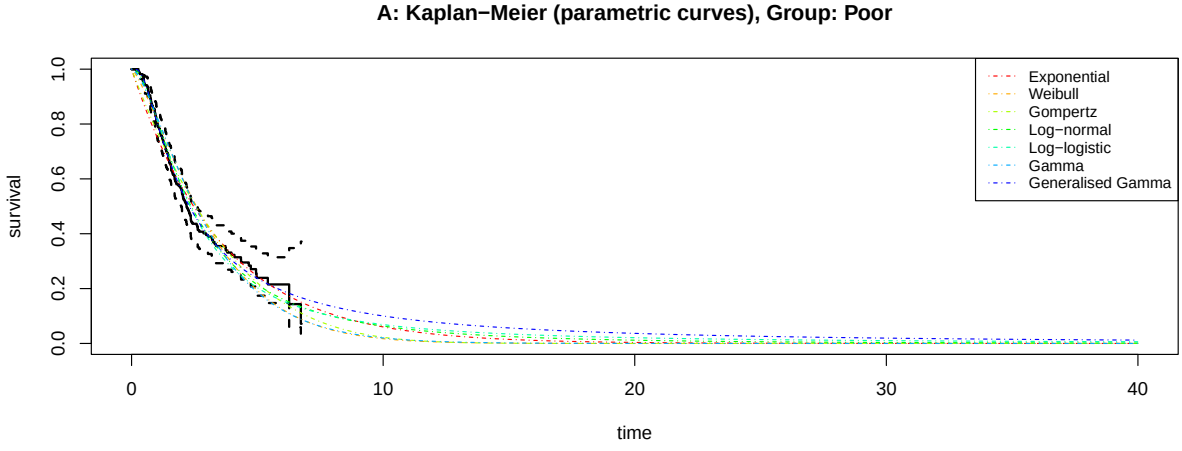


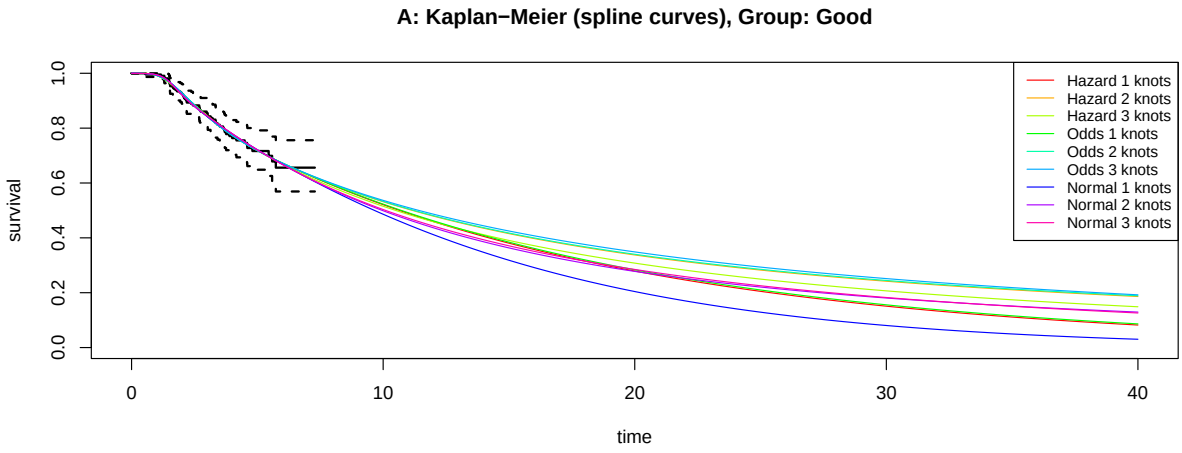
5 Extrapolation

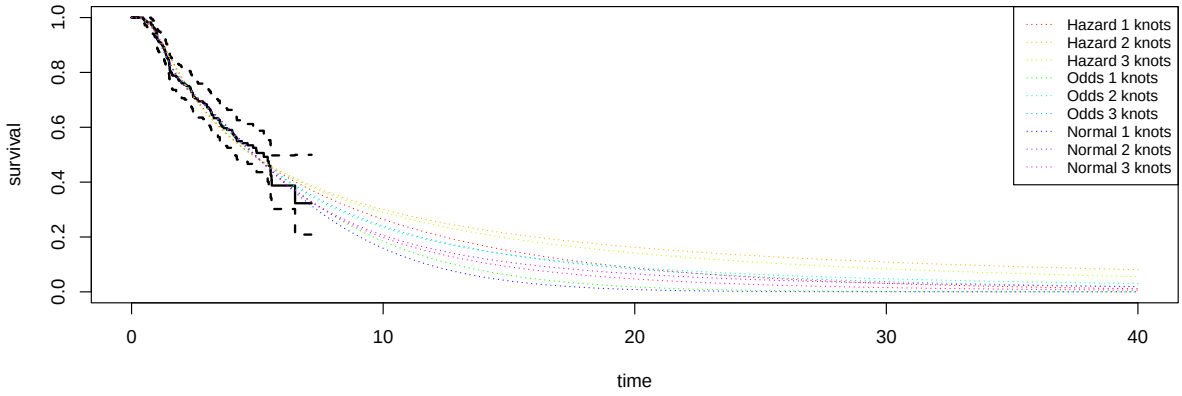
5.1 Extrapolated survival

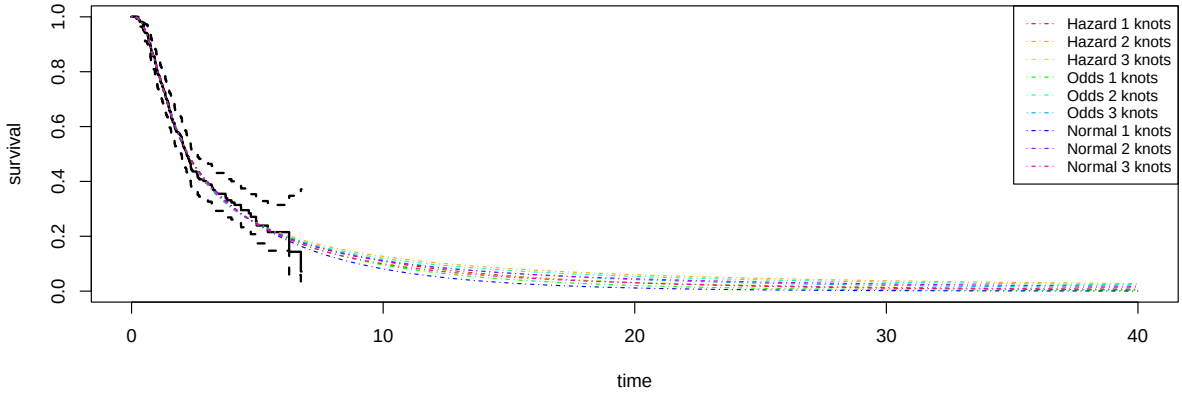


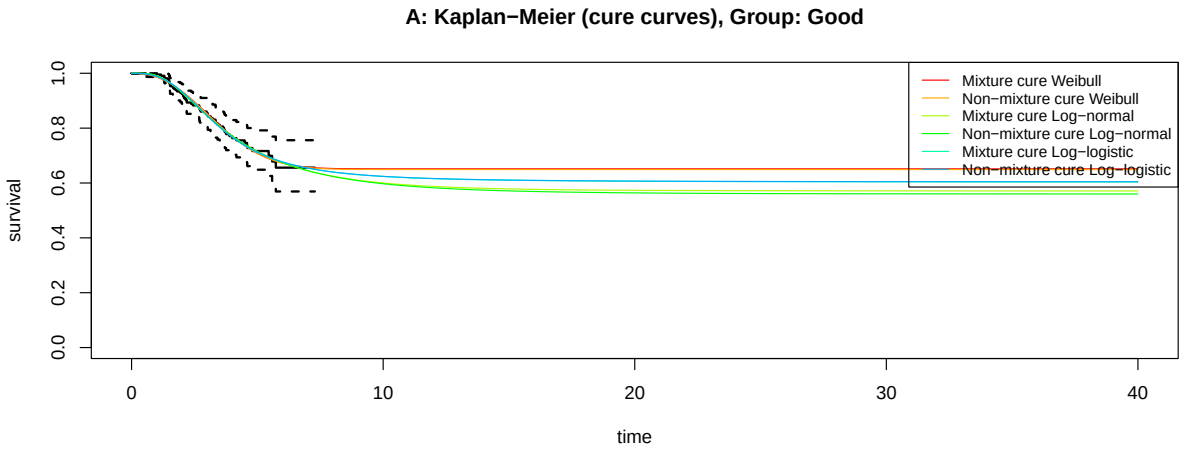


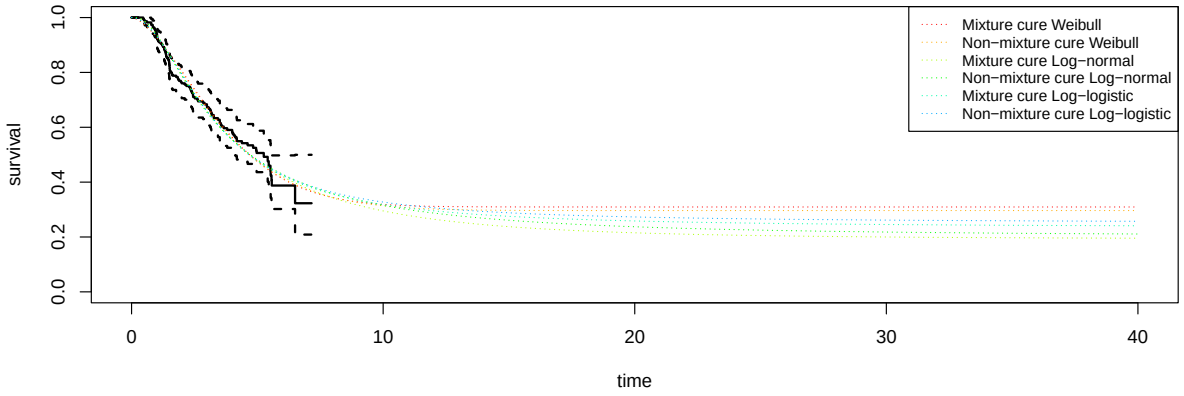


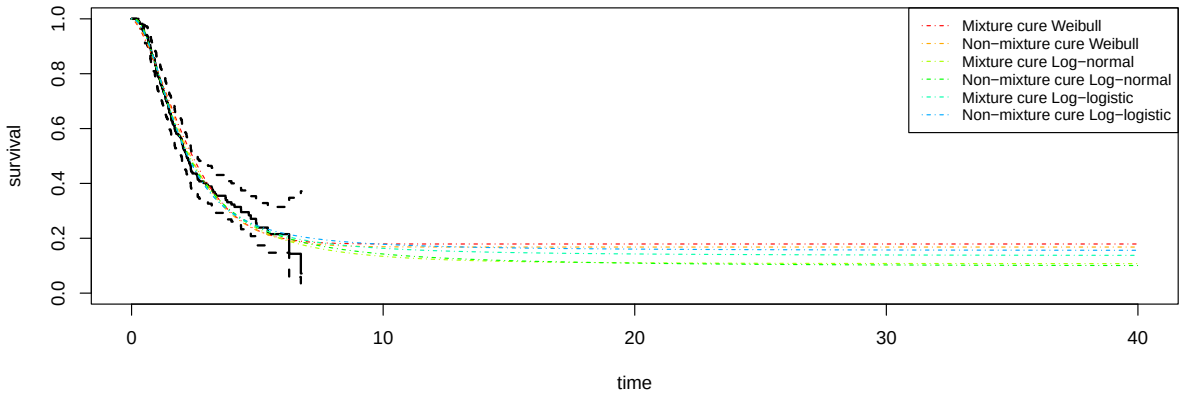

A: Kaplan−Meier (spline curves), Group: Good
survival
time
0.0
0.2
0.4
0.6
0.8
1.0
0
10
20
30
40
Hazard 1 knots
Hazard 2 knots
Hazard 3 knots
Odds 1 knots
Odds 2 knots
Odds 3 knots
Normal 1 knots
Normal 2 knots
Normal 3 knots


A: Kaplan−Meier (spline curves), Group: Medium
survival
time
0.0
0.2
0.4
0.6
0.8
1.0
0
10
20
30
40
Hazard 1 knots
Hazard 2 knots
Hazard 3 knots
Odds 1 knots
Odds 2 knots
Odds 3 knots
Normal 1 knots
Normal 2 knots
Normal 3 knots

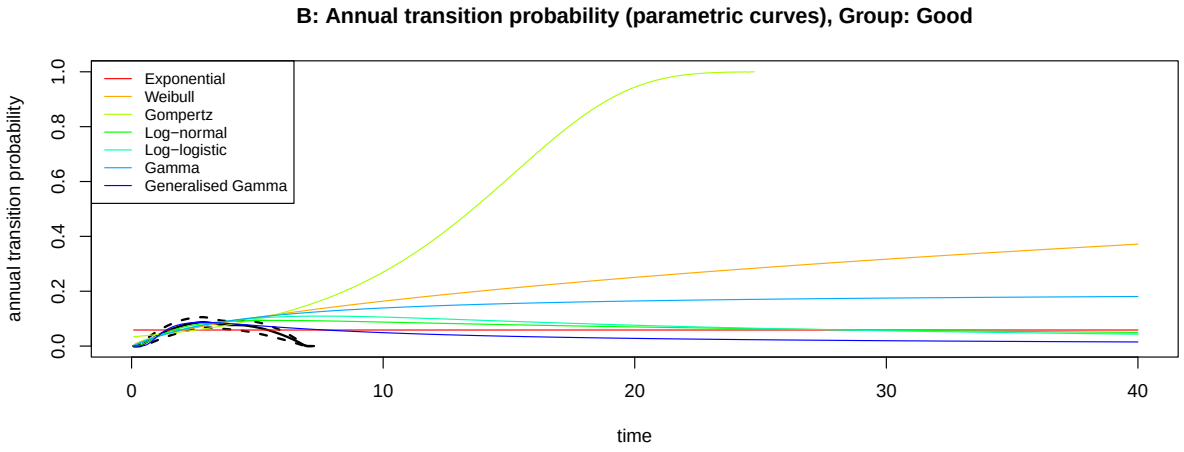

A: Kaplan−Meier (spline curves), Group: Poor
survival
time
0.0
0.2
0.4
0.6
0.8
1.0
0
10
20
30
40
Hazard 1 knots
Hazard 2 knots
Hazard 3 knots
Odds 1 knots
Odds 2 knots
Odds 3 knots
Normal 1 knots
Normal 2 knots
Normal 3 knots

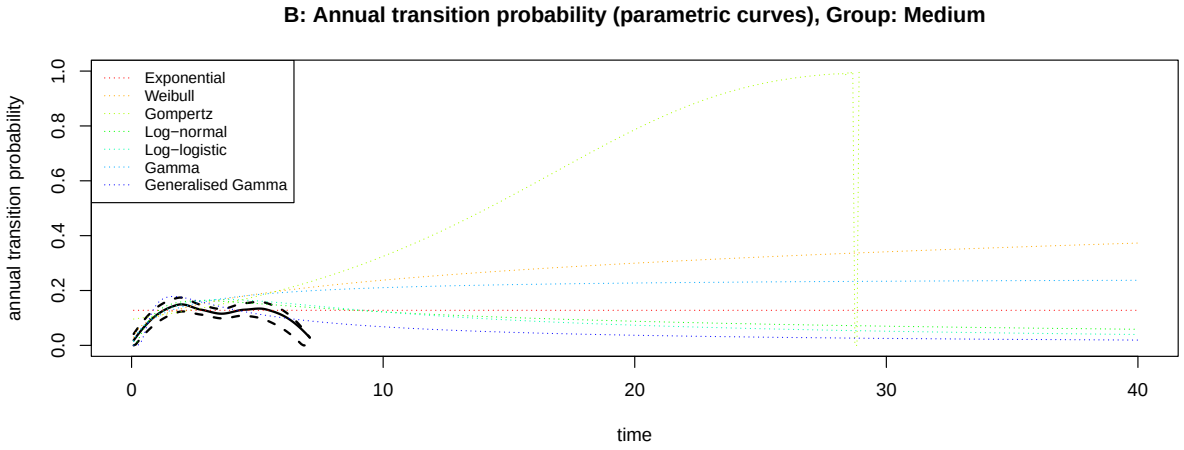

A: Kaplan−Meier (cure curves), Group: Good
survival
time
0.0
0.2
0.4
0.6
0.8
1.0
0
10
20
30
40
Mixture cure Weibull
Non−mixture cure Weibull
Mixture cure Log−normal
Non−mixture cure Log−normal
Mixture cure Log−logistic
Non−mixture cure Log−logistic

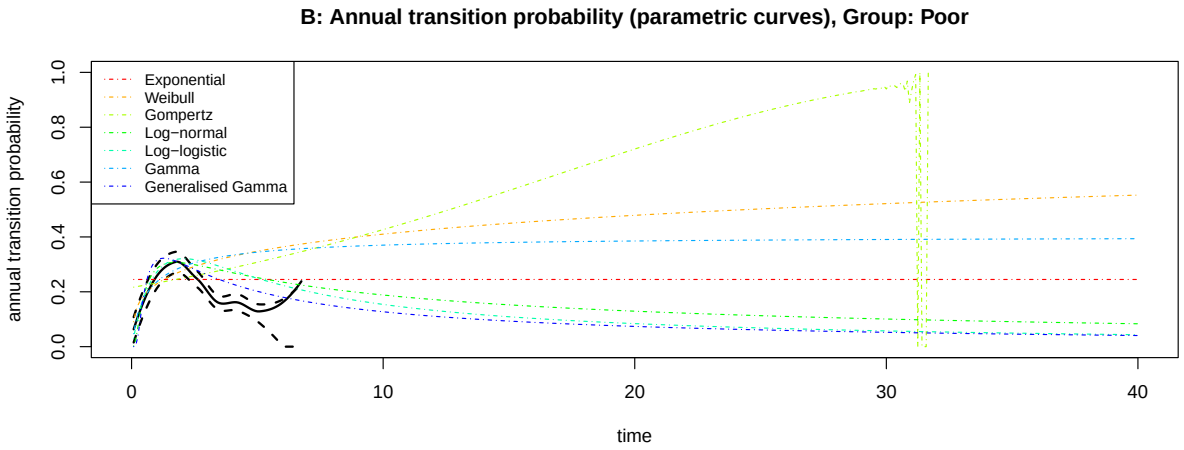

A: Kaplan−Meier (cure curves), Group: Medium
survival
time
0.0
0.2
0.4
0.6
0.8
1.0
0
10
20
30
40
Mixture cure Weibull
Non−mixture cure Weibull
Mixture cure Log−normal
Non−mixture cure Log−normal
Mixture cure Log−logistic
Non−mixture cure Log−logistic

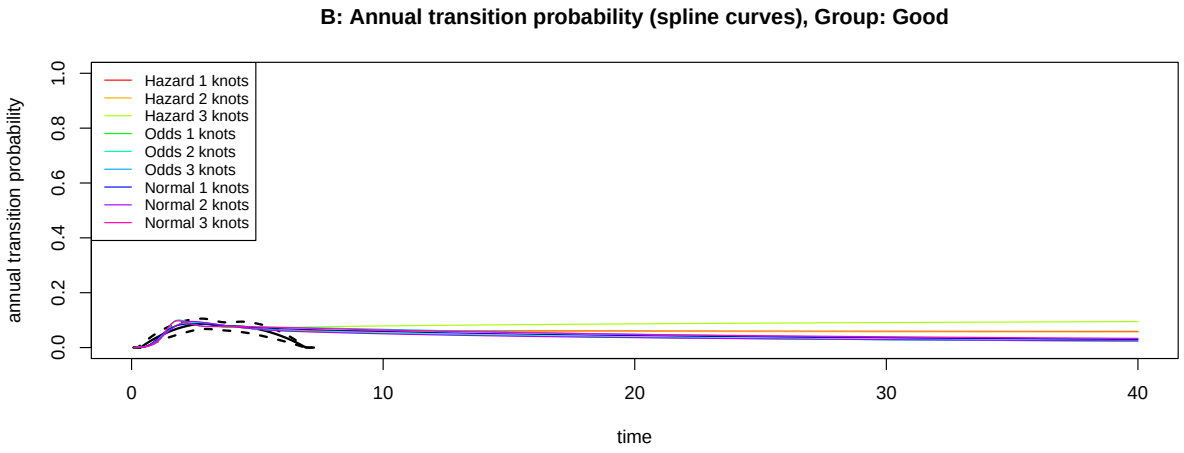

A: Kaplan−Meier (cure curves), Group: Poor
survival
time
0.0
0.2
0.4
0.6
0.8
1.0
0
10
20
30
40
Mixture cure Weibull
Non−mixture cure Weibull
Mixture cure Log−normal
Non−mixture cure Log−normal
Mixture cure Log−logistic
Non−mixture cure Log−logistic

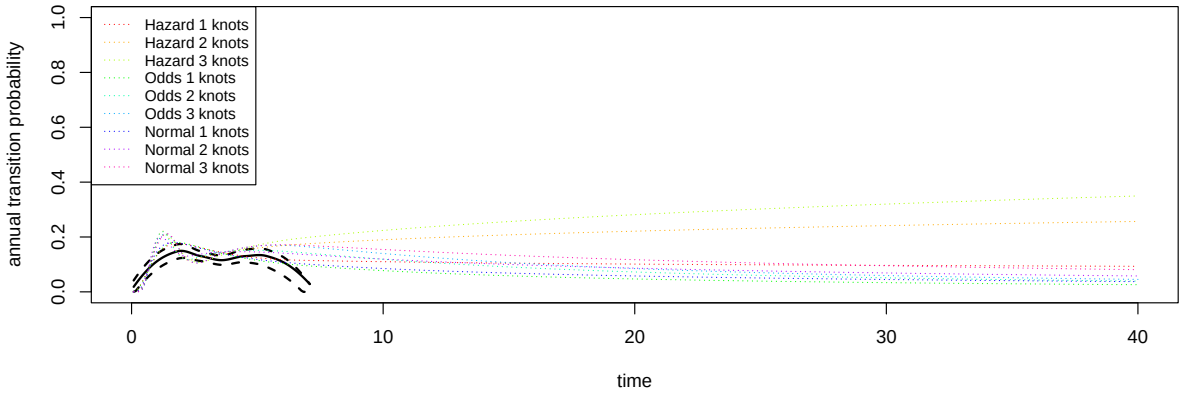
5.2 Extrapolated transition probabilities

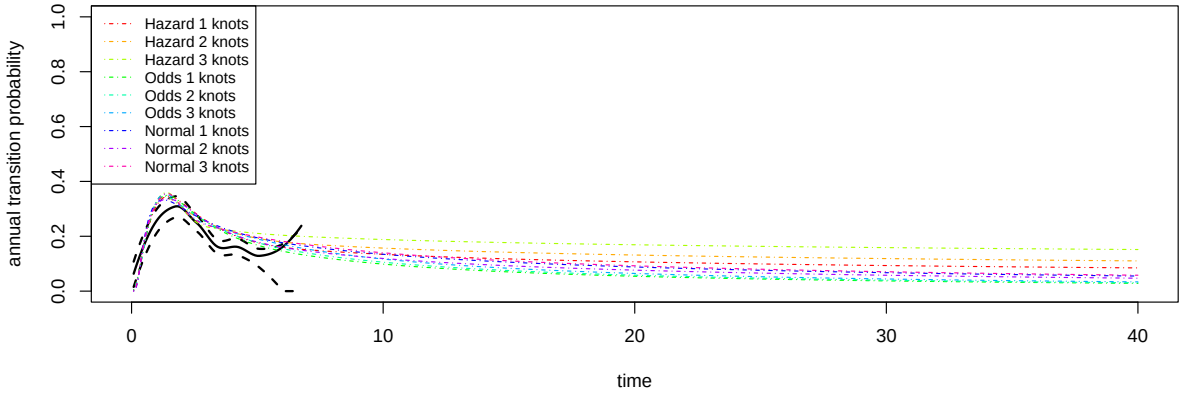


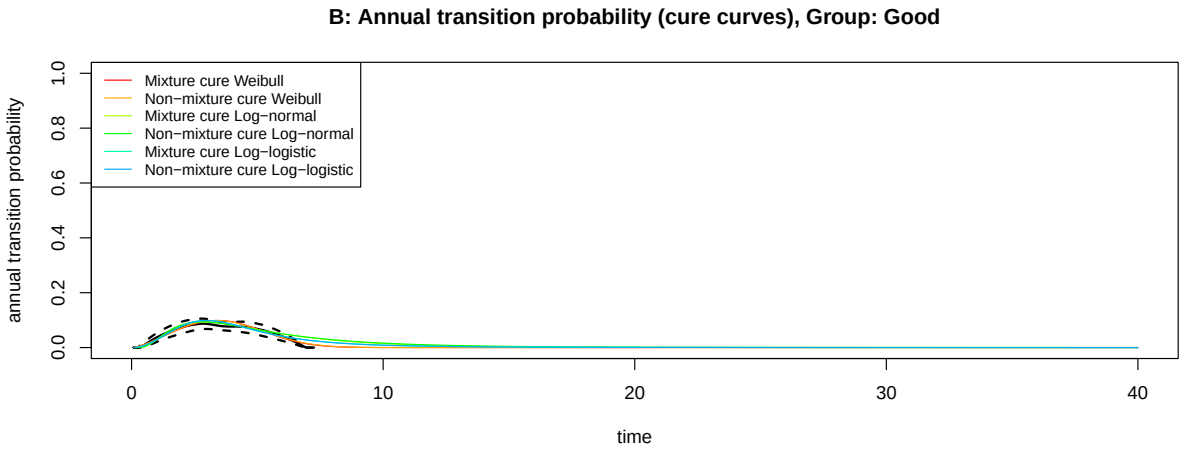


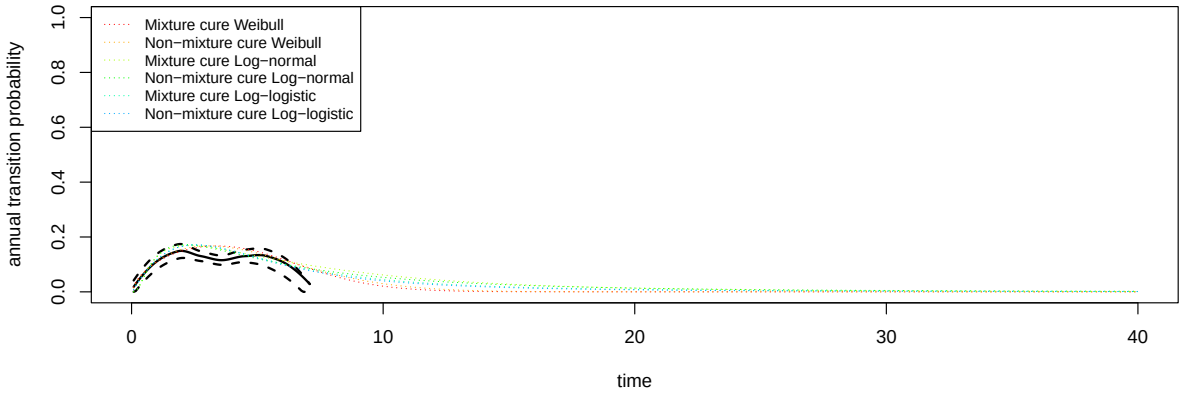


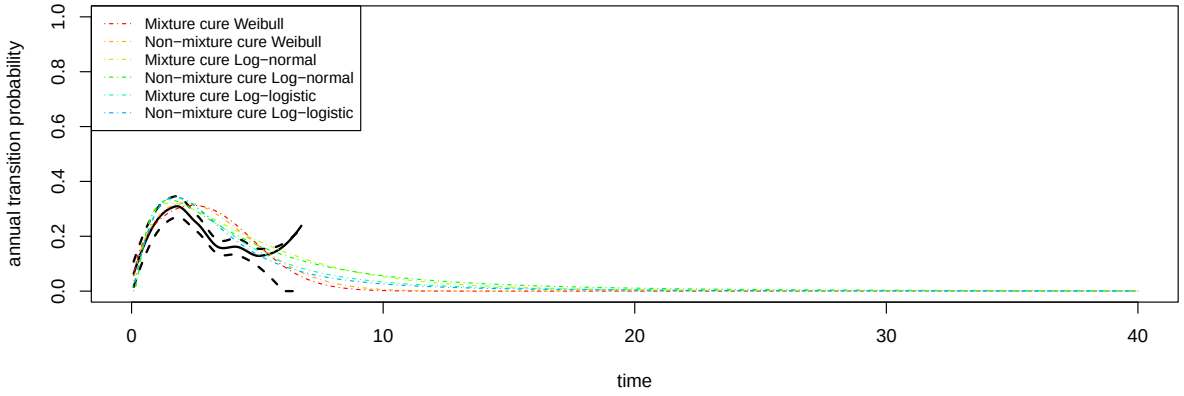

B: Annual transition probability (spline curves), Group: Good
annual transition probability
time
Hazard 1 knots
Hazard 2 knots
Hazard 3 knots
Odds 1 knots
Odds 2 knots
Odds 3 knots
Normal 1 knots
Normal 2 knots
Normal 3 knots
0.0
0.2
0.4
0.6
0.8
1.0
0
10
20
30
40


B: Annual transition probability (spline curves), Group: Medium
annual transition probability
time
Hazard 1 knots
Hazard 2 knots
Hazard 3 knots
Odds 1 knots
Odds 2 knots
Odds 3 knots
Normal 1 knots
Normal 2 knots
Normal 3 knots
0.0
0.2
0.4
0.6
0.8
1.0
0
10
20
30
40

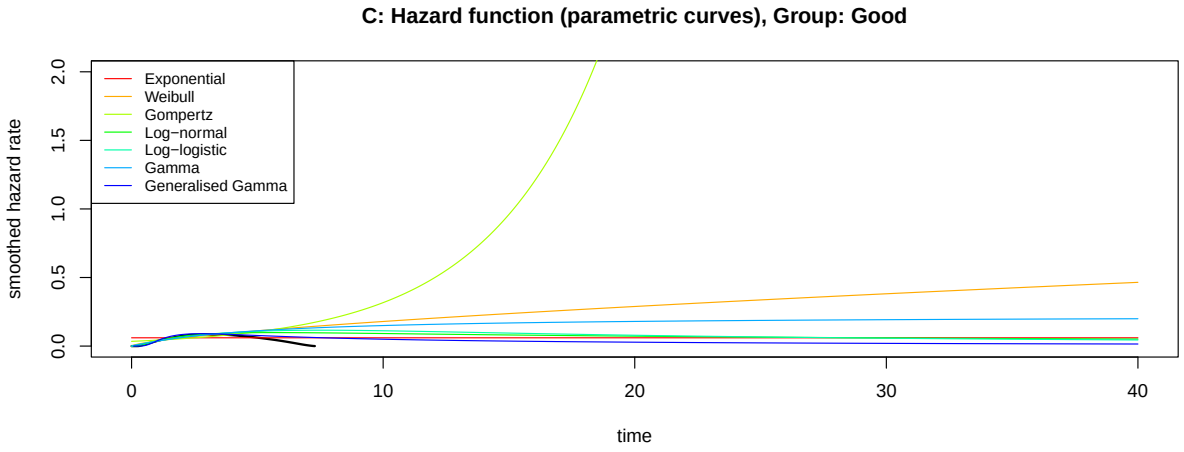

B: Annual transition probability (spline curves), Group: Poor
annual transition probability
time
Hazard 1 knots
Hazard 2 knots
Hazard 3 knots
Odds 1 knots
Odds 2 knots
Odds 3 knots
Normal 1 knots
Normal 2 knots
Normal 3 knots
0.0
0.2
0.4
0.6
0.8
1.0
0
10
20
30
40

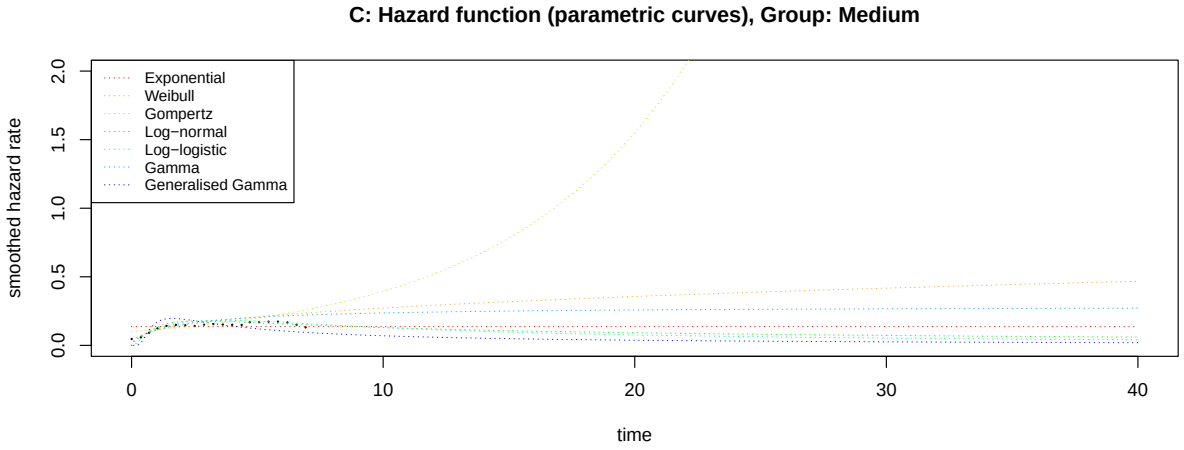

B: Annual transition probability (cure curves), Group: Good
Mixture cure Weibull
Non−mixture cure Weibull
Mixture cure Log−normal
Non−mixture cure Log−normal
Mixture cure Log−logistic
Non−mixture cure Log−logistic
annual transition probability
0.0
0.2
0.4
0.6
0.8
1.0
0
10
20
30
40
time

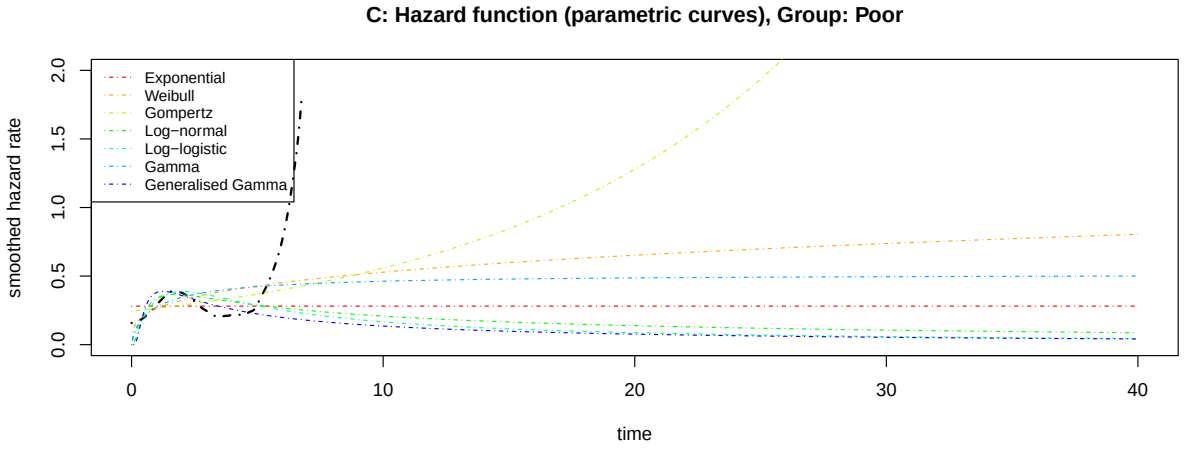

B: Annual transition probability (cure curves), Group: Medium
Mixture cure Weibull
Non−mixture cure Weibull
Mixture cure Log−normal
Non−mixture cure Log−normal
Mixture cure Log−logistic
Non−mixture cure Log−logistic
annual transition probability
0.0
0.2
0.4
0.6
0.8
1.0
0
10
20
30
40
time

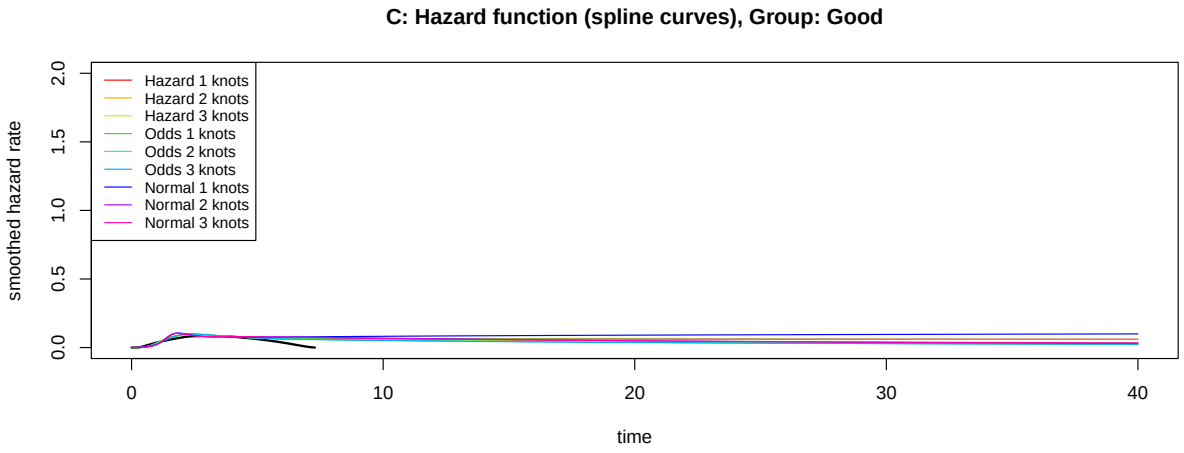

B: Annual transition probability (cure curves), Group: Poor
Mixture cure Weibull
Non−mixture cure Weibull
Mixture cure Log−normal
Non−mixture cure Log−normal
Mixture cure Log−logistic
Non−mixture cure Log−logistic
annual transition probability
0.0
0.2
0.4
0.6
0.8
1.0
0
10
20
30
40
time

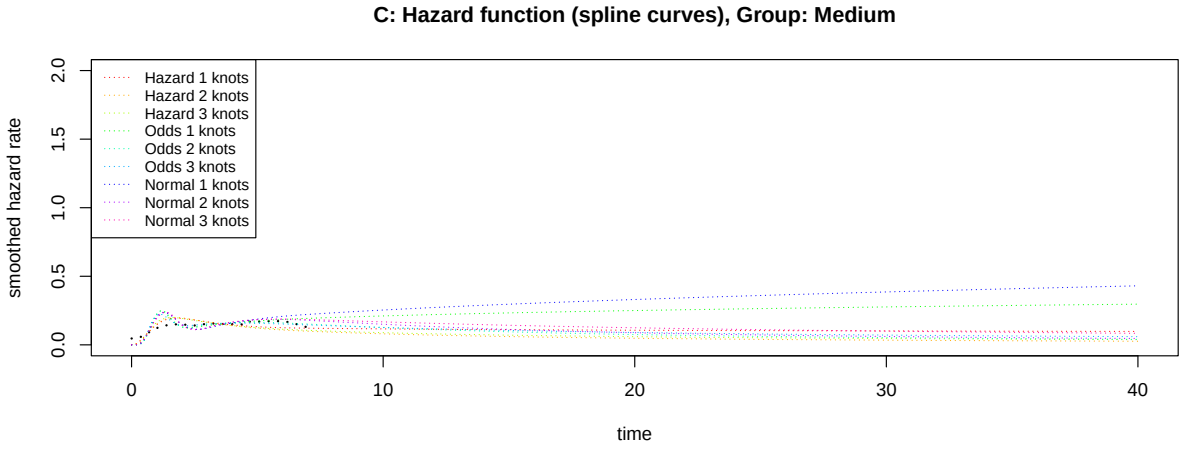
5.3 Extrapolated hazard function

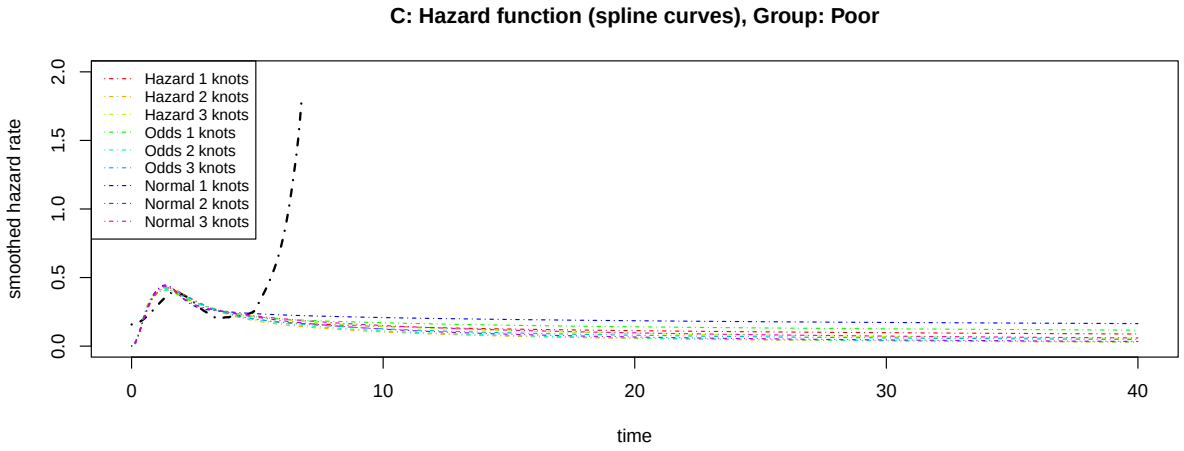


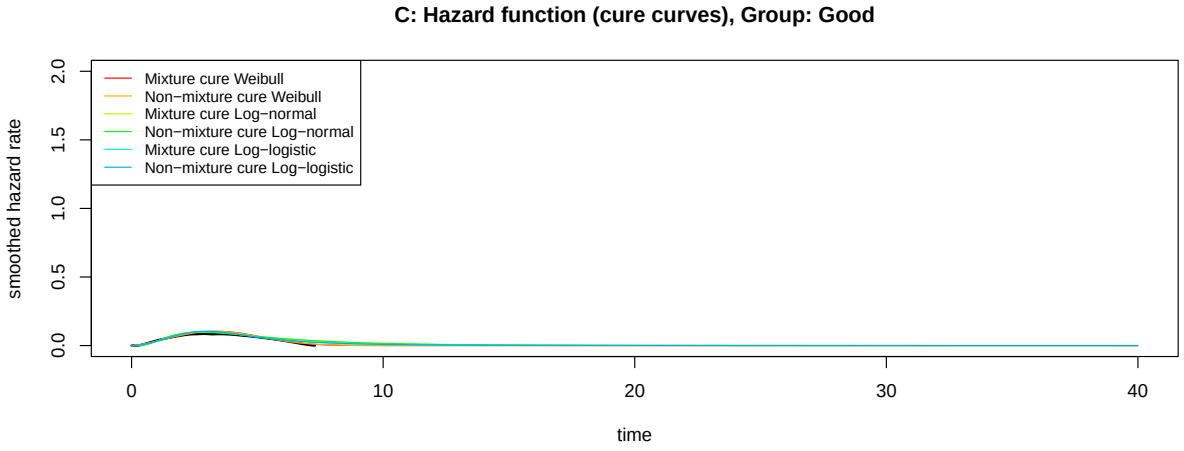


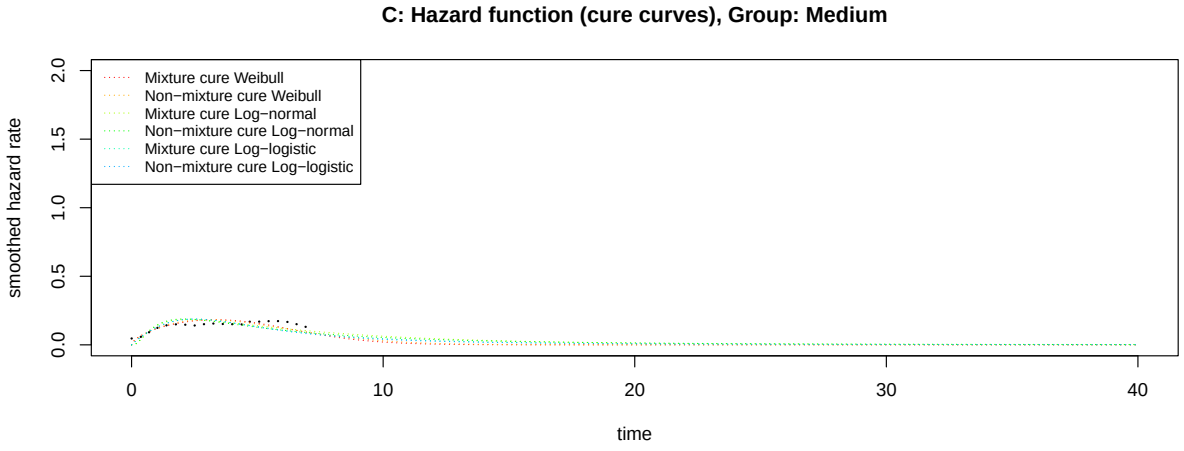


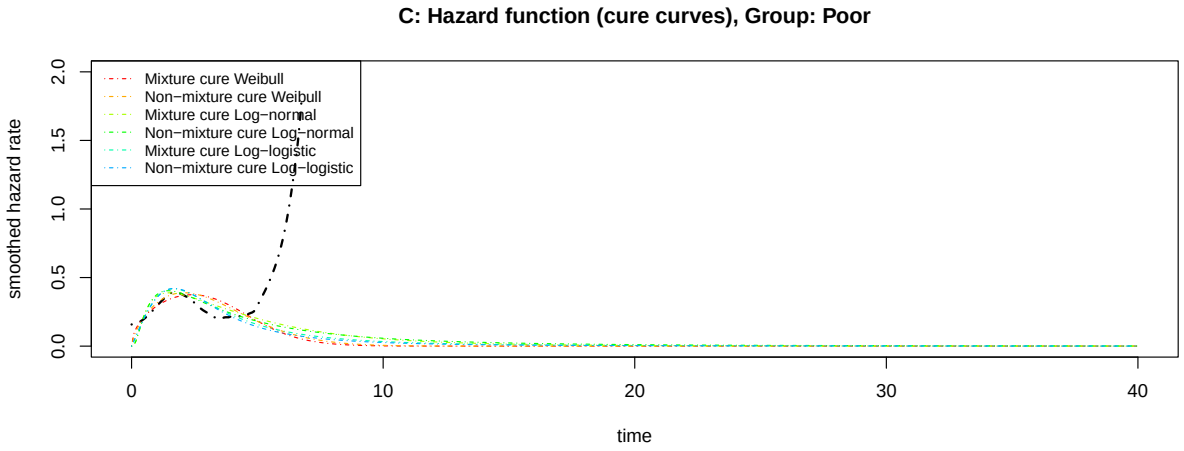

C: Hazard function (spline curves), Group: Good
Hazard 1 knots
Hazard 2 knots
Hazard 3 knots
Odds 1 knots
Odds 2 knots
Odds 3 knots
Normal 1 knots
Normal 2 knots
Normal 3 knots
smoothed hazard rate
0.0
0.5
1.0
1.5
2.0
0
10
20
30
40
time


C: Hazard function (spline curves), Group: Medium
Hazard 1 knots
Hazard 2 knots
Hazard 3 knots
Odds 1 knots
Odds 2 knots
Odds 3 knots
Normal 1 knots
Normal 2 knots
Normal 3 knots
smoothed hazard rate
0.0
0.5
1.0
1.5
2.0
0
10
20
30
40
time


C: Hazard function (spline curves), Group: Poor
Hazard 1 knots
Hazard 2 knots
Hazard 3 knots
Odds 1 knots
Odds 2 knots
Odds 3 knots
Normal 1 knots
Normal 2 knots
Normal 3 knots
smoothed hazard rate
0.0
0.5
1.0
1.5
2.0
0
10
20
30
40
time


C: Hazard function (cure curves), Group: Good
Mixture cure Weibull
Non−mixture cure Weibull
Mixture cure Log−normal
Non−mixture cure Log−normal
Mixture cure Log−logistic
Non−mixture cure Log−logistic
smoothed hazard rate
0.0
0.5
1.0
1.5
2.0
0
10
20
30
40
time


C: Hazard function (cure curves), Group: Medium
Mixture cure Weibull
Non−mixture cure Weibull
Mixture cure Log−normal
Non−mixture cure Log−normal
Mixture cure Log−logistic
Non−mixture cure Log−logistic
smoothed hazard rate
0.0
0.5
1.0
1.5
2.0
0
10
20
30
40
time


C: Hazard function (cure curves), Group: Poor
Mixture cure Weibull
Non−mixture cure Weibull
Mixture cure Log−normal
Non−mixture cure Log−normal
Mixture cure Log−logistic
Non−mixture cure Log−logistic
smoothed hazard rate
0.0
0.5
1.0
1.5
2.0
0
10
20
30
40
time

5.4 Tabulated results

Group Good

Table 6: Survival probability at different time points

	T= 0	T= 1	T= 2	T= 3	T= 4	T= 5	T= 10	T= 15	T= 20	T= 25	T= 30	T= 35
Exponential	1	0.941	0.886	0.834	0.785	0.739	0.547	0.404	0.299	0.221	0.163	0.121
Weibull	1	0.978	0.932	0.870	0.797	0.719	0.345	0.122	0.033	0.007	0.001	0.000
Gompertz	1	0.962	0.917	0.863	0.801	0.729	0.280	0.015	0.000	0.000	0.000	0.000
Log-normal	1	0.986	0.933	0.861	0.785	0.713	0.441	0.287	0.196	0.139	0.102	0.076
Log-logistic	1	0.980	0.932	0.865	0.789	0.712	0.403	0.240	0.156	0.108	0.080	0.061
Gamma	1	0.982	0.935	0.869	0.793	0.714	0.367	0.165	0.069	0.027	0.011	0.004
Generalised Gamma	1	0.991	0.928	0.849	0.778	0.717	0.526	0.425	0.362	0.319	0.286	0.261
Hazard 1 knots	1	0.992	0.927	0.843	0.774	0.719	0.521	0.381	0.279	0.205	0.151	0.111
Hazard 2 knots	1	0.992	0.928	0.843	0.774	0.719	0.523	0.384	0.284	0.210	0.156	0.116
Hazard 3 knots	1	0.994	0.922	0.843	0.779	0.721	0.486	0.318	0.204	0.129	0.080	0.050
Odds 1 knots	1	0.992	0.927	0.843	0.774	0.718	0.532	0.415	0.338	0.283	0.242	0.211
Odds 2 knots	1	0.992	0.928	0.843	0.774	0.718	0.533	0.418	0.340	0.285	0.245	0.213
Odds 3 knots	1	0.994	0.922	0.844	0.780	0.721	0.499	0.363	0.278	0.221	0.181	0.151
Normal 1 knots	1	0.992	0.926	0.847	0.778	0.719	0.515	0.391	0.308	0.250	0.207	0.174
Normal 2 knots	1	0.992	0.929	0.843	0.773	0.718	0.537	0.425	0.349	0.293	0.251	0.219
Normal 3 knots	1	0.994	0.921	0.845	0.780	0.721	0.503	0.371	0.285	0.225	0.182	0.151
Mixture cure Weibull	1	0.986	0.934	0.853	0.770	0.708	0.652	0.652	0.652	0.652	0.652	0.652
Non-mixture cure Weibull	1	0.987	0.934	0.852	0.770	0.708	0.649	0.649	0.649	0.649	0.649	0.649
Mixture cure Log-normal	1	0.991	0.930	0.845	0.771	0.715	0.600	0.578	0.573	0.572	0.571	0.571
Non-mixture cure Log-normal	1	0.991	0.930	0.845	0.771	0.715	0.597	0.571	0.564	0.561	0.561	0.560
Mixture cure Log-logistic	1	0.989	0.933	0.846	0.767	0.712	0.624	0.610	0.606	0.605	0.604	0.604
Non-mixture cure Log-logistic	1	0.989	0.933	0.846	0.767	0.712	0.624	0.611	0.607	0.606	0.605	0.605

Table 7: Summary statistics of annual transition probabilities

	Mean	Std.Dev	Min	Q1	Median	Q3	Max	IQR
Exponential	0.059	0.000	0.059	0.059	0.059	0.059	0.059	0.000
Weibull	0.235	0.096	0.004	0.164	0.251	0.317	0.371	0.153
Gompertz	0.485	0.361	0.034	0.128	0.415	0.878	1.000	0.750
Log-normal	0.068	0.017	0.000	0.056	0.067	0.082	0.094	0.025
Log-logistic	0.073	0.023	0.002	0.053	0.070	0.094	0.109	0.040
Gamma	0.149	0.038	0.001	0.139	0.164	0.175	0.181	0.036
Generalised Gamma	0.035	0.021	0.000	0.019	0.027	0.045	0.086	0.026
Hazard 1 knots	0.061	0.011	0.000	0.059	0.060	0.061	0.092	0.002
Hazard 2 knots	0.059	0.011	0.000	0.058	0.058	0.060	0.092	0.002
Hazard 3 knots	0.084	0.015	0.000	0.080	0.087	0.091	0.100	0.011
Odds 1 knots	0.041	0.017	0.000	0.028	0.036	0.050	0.092	0.022
Odds 2 knots	0.041	0.017	0.000	0.028	0.036	0.050	0.092	0.022
Odds 3 knots	0.050	0.018	0.000	0.036	0.047	0.064	0.100	0.028
Normal 1 knots	0.046	0.016	0.000	0.035	0.042	0.056	0.087	0.021
Normal 2 knots	0.040	0.017	0.000	0.028	0.035	0.048	0.095	0.019
Normal 3 knots	0.050	0.016	0.001	0.039	0.047	0.061	0.098	0.023
Mixture cure Weibull	0.010	0.025	0.000	0.000	0.000	0.000	0.099	0.000
Non-mixture cure Weibull	0.010	0.025	0.000	0.000	0.000	0.000	0.099	0.000
Mixture cure Log-normal	0.014	0.025	0.000	0.000	0.001	0.012	0.093	0.011
Non-mixture cure Log-normal	0.014	0.025	0.000	0.000	0.001	0.013	0.093	0.013
Mixture cure Log-logistic	0.012	0.025	0.000	0.000	0.001	0.007	0.099	0.007
Non-mixture cure Log-logistic	0.012	0.025	0.000	0.000	0.001	0.007	0.099	0.007

Group Medium

Table 8: Survival probability at different time points

	T= 0	T= 1	T= 2	T= 3	T= 4	T= 5	T= 10	T= 15	T= 20	T= 25	T= 30	T= 35
Exponential	1	0.872	0.761	0.663	0.578	0.505	0.255	0.128	0.065	0.033	0.016	0.008
Weibull	1	0.923	0.811	0.693	0.578	0.474	0.141	0.032	0.006	0.001	0.000	0.000
Gompertz	1	0.898	0.794	0.689	0.586	0.486	0.117	0.007	0.000	0.000	0.000	0.000
Log-normal	1	0.935	0.797	0.668	0.560	0.473	0.228	0.126	0.077	0.050	0.034	0.024
Log-logistic	1	0.927	0.801	0.673	0.561	0.468	0.218	0.124	0.081	0.057	0.043	0.034
Gamma	1	0.930	0.813	0.689	0.572	0.469	0.154	0.045	0.013	0.003	0.001	0.000
Generalised Gamma	1	0.937	0.774	0.648	0.556	0.488	0.310	0.232	0.187	0.158	0.138	0.122
Hazard 1 knots	1	0.939	0.782	0.652	0.558	0.486	0.265	0.150	0.087	0.052	0.031	0.019
Hazard 2 knots	1	0.935	0.766	0.673	0.579	0.490	0.184	0.061	0.018	0.005	0.001	0.000
Hazard 3 knots	1	0.936	0.761	0.674	0.585	0.491	0.159	0.040	0.008	0.001	0.000	0.000
Odds 1 knots	1	0.939	0.778	0.648	0.556	0.489	0.301	0.213	0.162	0.131	0.109	0.093
Odds 2 knots	1	0.935	0.769	0.673	0.576	0.489	0.235	0.136	0.089	0.063	0.048	0.037
Odds 3 knots	1	0.937	0.761	0.675	0.583	0.489	0.206	0.108	0.065	0.044	0.032	0.024
Normal 1 knots	1	0.938	0.775	0.648	0.557	0.488	0.290	0.195	0.141	0.107	0.084	0.067
Normal 2 knots	1	0.930	0.773	0.669	0.572	0.489	0.240	0.135	0.083	0.054	0.037	0.027
Normal 3 knots	1	0.937	0.761	0.675	0.583	0.489	0.198	0.091	0.047	0.026	0.015	0.010
Mixture cure Weibull	1	0.928	0.804	0.676	0.563	0.475	0.319	0.310	0.309	0.309	0.309	0.309
Non-mixture cure Weibull	1	0.929	0.801	0.670	0.559	0.475	0.314	0.297	0.296	0.296	0.296	0.296
Mixture cure Log-normal	1	0.936	0.790	0.658	0.556	0.479	0.295	0.238	0.215	0.205	0.200	0.197
Non-mixture cure Log-normal	1	0.937	0.787	0.654	0.555	0.482	0.315	0.261	0.237	0.225	0.218	0.214
Mixture cure Log-logistic	1	0.931	0.793	0.658	0.553	0.477	0.318	0.275	0.258	0.250	0.246	0.243
Non-mixture cure Log-logistic	1	0.931	0.793	0.659	0.554	0.479	0.327	0.288	0.273	0.266	0.262	0.259

Table 9: Summary statistics of annual transition probabilities

	Mean	Std.Dev	Min	Q1	Median	Q3	Max	IQR
Exponential	0.128	0.000	0.128	0.128	0.128	0.128	0.128	0.000
Weibull	0.282	0.073	0.030	0.238	0.300	0.341	0.373	0.103
Gompertz	0.535	0.313	0.000	0.233	0.509	0.851	1.000	0.619
Log-normal	0.095	0.032	0.000	0.069	0.086	0.117	0.163	0.048
Log-logistic	0.085	0.040	0.015	0.051	0.072	0.115	0.167	0.063
Gamma	0.214	0.034	0.016	0.211	0.227	0.234	0.237	0.023
Generalised Gamma	0.053	0.040	0.000	0.025	0.036	0.064	0.178	0.039
Hazard 1 knots	0.106	0.020	0.001	0.096	0.101	0.109	0.177	0.013
Hazard 2 knots	0.211	0.042	0.000	0.192	0.221	0.241	0.257	0.049
Hazard 3 knots	0.265	0.070	0.000	0.224	0.282	0.320	0.350	0.096
Odds 1 knots	0.060	0.038	0.000	0.033	0.046	0.074	0.181	0.041
Odds 2 knots	0.083	0.040	0.000	0.050	0.071	0.113	0.219	0.063
Odds 3 knots	0.094	0.042	0.000	0.058	0.082	0.126	0.212	0.067
Normal 1 knots	0.069	0.035	0.000	0.045	0.057	0.082	0.180	0.038
Normal 2 knots	0.093	0.032	0.000	0.068	0.085	0.116	0.201	0.048
Normal 3 knots	0.119	0.032	0.000	0.094	0.113	0.143	0.212	0.049
Mixture cure Weibull	0.027	0.052	0.000	0.000	0.000	0.019	0.167	0.019
Non-mixture cure Weibull	0.028	0.052	0.000	0.000	0.000	0.028	0.168	0.028
Mixture cure Log-normal	0.039	0.050	0.000	0.004	0.013	0.057	0.168	0.053
Non-mixture cure Log-normal	0.037	0.048	0.000	0.005	0.013	0.049	0.172	0.044
Mixture cure Log-logistic	0.034	0.049	0.001	0.003	0.009	0.042	0.171	0.039
Non-mixture cure Log-logistic	0.032	0.048	0.001	0.002	0.007	0.037	0.171	0.035

Group Poor

Table 10: Survival probability at different time points

	T= 0	T= 1	T= 2	T= 3	T= 4	T= 5	T= 10	T= 15	T= 20	T= 25	T= 30	T= 35
Exponential	1	0.755	0.570	0.430	0.325	0.245	0.060	0.015	0.004	0.001	0.000	0.000
Weibull	1	0.817	0.608	0.430	0.292	0.193	0.017	0.001	0.000	0.000	0.000	0.000
Gompertz	1	0.776	0.588	0.436	0.315	0.221	0.022	0.001	0.000	0.000	0.000	0.000
Log-normal	1	0.820	0.572	0.401	0.289	0.214	0.063	0.025	0.012	0.006	0.004	0.002
Log-logistic	1	0.819	0.568	0.389	0.275	0.203	0.069	0.034	0.021	0.014	0.010	0.008
Gamma	1	0.829	0.605	0.420	0.283	0.187	0.020	0.002	0.000	0.000	0.000	0.000
Generalised Gamma	1	0.810	0.555	0.399	0.302	0.237	0.100	0.057	0.037	0.026	0.019	0.015
Hazard 1 knots	1	0.822	0.545	0.390	0.301	0.244	0.109	0.056	0.031	0.018	0.011	0.007
Hazard 2 knots	1	0.817	0.545	0.396	0.305	0.243	0.096	0.043	0.021	0.010	0.005	0.003
Hazard 3 knots	1	0.819	0.539	0.400	0.310	0.243	0.081	0.030	0.012	0.005	0.002	0.001
Odds 1 knots	1	0.820	0.542	0.390	0.303	0.248	0.127	0.082	0.060	0.047	0.038	0.032
Odds 2 knots	1	0.817	0.544	0.393	0.304	0.246	0.120	0.075	0.054	0.041	0.033	0.027
Odds 3 knots	1	0.818	0.542	0.398	0.308	0.246	0.110	0.066	0.045	0.033	0.026	0.021
Normal 1 knots	1	0.811	0.549	0.398	0.305	0.242	0.102	0.054	0.033	0.021	0.015	0.011
Normal 2 knots	1	0.815	0.546	0.392	0.303	0.245	0.113	0.065	0.042	0.029	0.021	0.016
Normal 3 knots	1	0.818	0.541	0.398	0.308	0.244	0.099	0.051	0.030	0.019	0.013	0.009
Mixture cure Weibull	1	0.819	0.585	0.403	0.290	0.229	0.179	0.179	0.179	0.179	0.179	0.179
Non-mixture cure Weibull	1	0.820	0.570	0.391	0.285	0.228	0.169	0.168	0.168	0.168	0.168	0.168
Mixture cure Log-normal	1	0.818	0.558	0.394	0.295	0.235	0.134	0.116	0.111	0.109	0.108	0.108
Non-mixture cure Log-normal	1	0.818	0.551	0.390	0.297	0.241	0.143	0.118	0.109	0.105	0.103	0.101
Mixture cure Log-logistic	1	0.822	0.549	0.381	0.290	0.240	0.163	0.148	0.143	0.140	0.139	0.138
Non-mixture cure Log-logistic	1	0.823	0.549	0.380	0.293	0.246	0.178	0.165	0.161	0.158	0.157	0.157

Table 11: Summary statistics of annual transition probabilities

	Mean	Std.Dev	Min	Q1	Median	Q3	Max	IQR
Exponential	0.245	0.000	0.245	0.245	0.245	0.245	0.245	0.000
Weibull	0.454	0.087	0.091	0.411	0.479	0.522	0.553	0.111
Gompertz	0.588	0.244	0.000	0.367	0.586	0.816	1.000	0.449
Log-normal	0.150	0.063	0.002	0.100	0.128	0.184	0.307	0.084
Log-logistic	0.116	0.078	0.031	0.057	0.083	0.149	0.321	0.092
Gamma	0.370	0.042	0.047	0.370	0.385	0.391	0.394	0.020
Generalised Gamma	0.101	0.071	0.000	0.052	0.073	0.124	0.322	0.072
Hazard 1 knots	0.125	0.056	0.005	0.093	0.106	0.132	0.346	0.039
Hazard 2 knots	0.147	0.049	0.003	0.118	0.131	0.155	0.347	0.037
Hazard 3 knots	0.179	0.039	0.003	0.158	0.168	0.187	0.359	0.028
Odds 1 knots	0.083	0.072	0.004	0.037	0.053	0.095	0.349	0.058
Odds 2 knots	0.087	0.072	0.003	0.040	0.057	0.102	0.347	0.063
Odds 3 knots	0.093	0.072	0.003	0.044	0.064	0.113	0.354	0.069
Normal 1 knots	0.111	0.065	0.000	0.067	0.087	0.131	0.333	0.065
Normal 2 knots	0.101	0.067	0.000	0.058	0.076	0.116	0.336	0.059
Normal 3 knots	0.115	0.064	0.001	0.070	0.091	0.136	0.356	0.066
Mixture cure Weibull	0.037	0.087	0.000	0.000	0.000	0.002	0.312	0.002
Non-mixture cure Weibull	0.039	0.088	0.000	0.000	0.000	0.006	0.322	0.006
Mixture cure Log-normal	0.050	0.087	0.000	0.001	0.005	0.049	0.322	0.048
Non-mixture cure Log-normal	0.051	0.084	0.001	0.003	0.011	0.054	0.332	0.050
Mixture cure Log-logistic	0.044	0.085	0.001	0.001	0.005	0.032	0.341	0.031
Non-mixture cure Log-logistic	0.041	0.084	0.000	0.001	0.004	0.025	0.343	0.024

6. PERSUADE object information

```
## List of 7
##  $ name            : chr "BC_OS"
##  $ input           :List of 11
##   ..$ years               : num [1:686] 3.68 4.32 4.82 3.16 2.65 ...
##   ..$ status              : num [1:686] 0 0 0 0 0 0 0 1 0 0 ...
##   ..$ group               : Factor w/ 3 levels "Good","Medium",..: 1 1 1 1 1 1 1 1 1 1 ...
##   ..$ strata              : logi TRUE
##   ..$ spline_mod          : logi TRUE
##   ..$ cure_mod            : logi TRUE
##   ..$ cure_link           : chr "logistic"
##   ..$ time_unit           : num 0.0833
##   ..$ time_horizon        : num 40
##   ..$ time_pred_surv_table: num [1:12] 0 12 24 36 48 60 120 180 240 300 ...
##   ..$ time_pred           : num [1:481] 0 0.0833 0.1667 0.25 0.3333 ...
##  $ surv_obs        :List of 6
##   ..$ km      :List of 24
##   .. ..- attr(*, "class")= chr [1:2] "npsurv" "survfit"
##   ..$ km_names: int [1:646] 1 1 1 1 1 1 1 1 1 1 ...
##   ..$ cum_haz :'data.frame': 256 obs. of  9 variables:
##   ..$ haz     :List of 3
##   ..$ tp      :List of 4
##   ..$ cox_reg :List of 21
##   .. ..- attr(*, "class")= chr "coxph"
##  $ surv_model      :List of 6
##   ..$ param_models :List of 7
##   ..$ param_ic     :'data.frame':    7 obs. of  3 variables:
##   ..$ spline_models:List of 9
##   ..$ spline_ic    :'data.frame':    9 obs. of  3 variables:
##   ..$ cure_models  :List of 6
##   ..$ cure_ic      :'data.frame':    6 obs. of  5 variables:
##  $ surv_pred       :List of 3
##   ..$ model:List of 9
##   ..$ gr   :List of 3
##   ..$ tp_gr:List of 3
##  $ surv_model_excel:'data.frame':    24 obs. of  150 variables:
##   ..$ rate               : chr [1:24] "expo" "rate" "-2.80703426596042" "-3.08148411925748" ...
##   ..$ groupMedium        : chr [1:24] "expo" "groupMedium" "0.818021897705403" "0.482435189564671" .
##   ..$ groupPoor          : chr [1:24] "expo" "groupPoor" "1.53752320421143" "1.21843772753164" ...
##   ..$ shape              : chr [1:24] "weib" "shape" "0.522842941227738" "0.285099322690929" ...
##   ..$ scale              : chr [1:24] "weib" "scale" "2.26626166011077" "2.02632949004802" ...
##   ..$ groupMedium        : chr [1:24] "weib" "groupMedium" "-0.447145140906987" "-0.732231654626038"
##   ..$ groupPoor          : chr [1:24] "weib" "groupPoor" "-1.0384947611494" "-1.30926136509352" ...
##   ..$ shape(groupMedium) : chr [1:24] "weib" "shape(groupMedium)" "-0.193739409990849" "-0.484038444
##   ..$ shape(groupPoor)   : chr [1:24] "weib" "shape(groupPoor)" "-0.258211641329158" "-0.53041017496
##   ..$ shape              : chr [1:24] "gom" "shape" "0.221650478494696" "0.0571597766378877" ...
##   ..$ rate               : chr [1:24] "gom" "rate" "-3.36564422440594" "-3.90407851702435" ...
##   ..$ groupMedium        : chr [1:24] "gom" "groupMedium" "1.06685398302701" "0.423029806773669" ...
##   ..$ groupPoor          : chr [1:24] "gom" "groupPoor" "1.9540432716812" "1.35352047967122" ...
##   ..$ shape(groupMedium) : chr [1:24] "gom" "shape(groupMedium)" "-0.0847240786449626" "-0.289307606
##   ..$ shape(groupPoor)   : chr [1:24] "gom" "shape(groupPoor)" "-0.138758583249691" "-0.340847146615
##   ..$ meanlog            : chr [1:24] "lnorm" "meanlog" "2.15766237442877" "1.89389741374292" ...
##   ..$ sdlog              : chr [1:24] "lnorm" "sdlog" "-0.0231614685999281" "-0.240079127188789" ...
```

```
##   ..$ groupMedium        : chr [1:24] "lnorm" "groupMedium" "-0.616405276964592" "-0.931509869641886
##   ..$ groupPoor          : chr [1:24] "lnorm" "groupPoor" "-1.29461457120387" "-1.59148086932483" ..
##   ..$ sdlog(groupMedium) : chr [1:24] "lnorm" "sdlog(groupMedium)" "0.0430707930704261" "-0.22024713
##   ..$ sdlog(groupPoor)   : chr [1:24] "lnorm" "sdlog(groupPoor)" "-0.035860060637656" "-0.2847543784
##   ..$ shape              : chr [1:24] "llog" "shape" "0.626215586614288" "0.391807869444117" ...
##   ..$ scale              : chr [1:24] "llog" "scale" "2.09213155981541" "1.85991061112256" ...
##   ..$ groupMedium        : chr [1:24] "llog" "groupMedium" "-0.559250078304111" "-0.843377495291217"
##   ..$ groupPoor          : chr [1:24] "llog" "groupPoor" "-1.24675818981847" "-1.51563436942317" ...
##   ..$ shape(groupMedium) : chr [1:24] "llog" "shape(groupMedium)" "-0.119014027328347" "-0.404025558
##   ..$ shape(groupPoor)   : chr [1:24] "llog" "shape(groupPoor)" "-0.0445926446637765" "-0.3150356240
##   ..$ shape              : chr [1:24] "gam" "shape" "0.730152742986698" "0.405934219745528" ...
##   ..$ rate               : chr [1:24] "gam" "rate" "-1.49809910454757" "-2.03166884973234" ...
##   ..$ groupMedium        : chr [1:24] "gam" "groupMedium" "0.24690520822162" "-0.392738296363486" ..
##   ..$ groupPoor          : chr [1:24] "gam" "groupPoor" "0.834663901724156" "0.234149853810018" ...
##   ..$ shape(groupMedium) : chr [1:24] "gam" "shape(groupMedium)" "-0.22379661876854" "-0.62506526205
##   ..$ shape(groupPoor)   : chr [1:24] "gam" "shape(groupPoor)" "-0.245015909581633" "-0.628451036394
##   ..$ mu                 : chr [1:24] "ggam" "mu" "1.81202668453465" "1.21730209478661" ...
##   ..$ sigma              : chr [1:24] "ggam" "sigma" "0.232571933902732" "-0.016741543388701" ...
##   ..$ Q                  : chr [1:24] "ggam" "Q" "-1.22829849620357" "-2.75400037606476" ...
##   ..$ groupMedium        : chr [1:24] "ggam" "groupMedium" "-0.703779456085614" "-1.46345284222943"
##   ..$ groupPoor          : chr [1:24] "ggam" "groupPoor" "-1.15639058358082" "-1.81090501002432" ...
##   ..$ sigma(groupMedium) : chr [1:24] "ggam" "sigma(groupMedium)" "-0.111742534466758" "-0.400994984
##   ..$ sigma(groupPoor)   : chr [1:24] "ggam" "sigma(groupPoor)" "-0.251806027157588" "-0.52934875428
##   ..$ Q(groupMedium)     : chr [1:24] "ggam" "Q(groupMedium)" "0.130949690012828" "-1.7041062478985"
##   ..$ Q(groupPoor)       : chr [1:24] "ggam" "Q(groupPoor)" "0.706102215543455" "-0.924489391519342"
##   ..$ gamma0             : chr [1:24] "spl_hazard_1" "gamma0" "-4.00166824461331" "-4.73804895372434
##   ..$ gamma1             : chr [1:24] "spl_hazard_1" "gamma1" "5.68413827144086" "2.64680689857505"
##   ..$ gamma2             : chr [1:24] "spl_hazard_1" "gamma2" "0.536346985941307" "0.150091211344567
##   ..$ groupMedium        : chr [1:24] "spl_hazard_1" "groupMedium" "1.64701334654769" "0.82121480514
##   ..$ groupPoor          : chr [1:24] "spl_hazard_1" "groupPoor" "2.73852858210568" "1.95737254582953
##   ..$ gamma1(groupMedium): chr [1:24] "spl_hazard_1" "gamma1(groupMedium)" "-2.61371799384606" "-5.8
##   ..$ gamma1(groupPoor)  : chr [1:24] "spl_hazard_1" "gamma1(groupPoor)" "-3.04969394511859" "-6.150
##   ..$ gamma2(groupMedium): chr [1:24] "spl_hazard_1" "gamma2(groupMedium)" "-0.286595121633603" "-0.
##   ..$ gamma2(groupPoor)  : chr [1:24] "spl_hazard_1" "gamma2(groupPoor)" "-0.310481705247366" "-0.70
##   ..$ gamma0             : chr [1:24] "spl_odds_1" "gamma0" "-4.0491737654773" "-4.80121937987566" .
##   ..$ gamma1             : chr [1:24] "spl_odds_1" "gamma1" "5.58348971192191" "2.4370507805455" ...
##   ..$ gamma2             : chr [1:24] "spl_odds_1" "gamma2" "0.503676257390164" "0.0982702028126948"
##   ..$ groupMedium        : chr [1:24] "spl_odds_1" "groupMedium" "1.68509095473313" "0.8293319359502
##   ..$ groupPoor          : chr [1:24] "spl_odds_1" "groupPoor" "2.81726297700326" "1.99594335877646"
##   ..$ gamma1(groupMedium): chr [1:24] "spl_odds_1" "gamma1(groupMedium)" "-2.44366892055128" "-5.781
##   ..$ gamma1(groupPoor)  : chr [1:24] "spl_odds_1" "gamma1(groupPoor)" "-2.85991639069175" "-6.08715
##   ..$ gamma2(groupMedium): chr [1:24] "spl_odds_1" "gamma2(groupMedium)" "-0.27699989500101" "-0.711
##   ..$ gamma2(groupPoor)  : chr [1:24] "spl_odds_1" "gamma2(groupPoor)" "-0.328459513919301" "-0.7506
##   ..$ gamma0             : chr [1:24] "spl_normal_1" "gamma0" "-2.18021330994335" "-2.50676494276407
##   ..$ gamma1             : chr [1:24] "spl_normal_1" "gamma1" "2.00305993955204" "0.754967846287642"
##   ..$ gamma2             : chr [1:24] "spl_normal_1" "gamma2" "0.139244131569558" "-0.03107801496562
##   ..$ groupMedium        : chr [1:24] "spl_normal_1" "groupMedium" "0.781203417379839" "0.3858841960
##   ..$ groupPoor          : chr [1:24] "spl_normal_1" "groupPoor" "1.39918475049402" "1.0136686890126
##   ..$ gamma1(groupMedium): chr [1:24] "spl_normal_1" "gamma1(groupMedium)" "-0.474093975078312" "-1.8
##   ..$ gamma1(groupPoor)  : chr [1:24] "spl_normal_1" "gamma1(groupPoor)" "-0.634060434239667" "-1.929
##   ..$ gamma2(groupMedium): chr [1:24] "spl_normal_1" "gamma2(groupMedium)" "-0.0508253646904045" "-0
##   ..$ gamma2(groupPoor)  : chr [1:24] "spl_normal_1" "gamma2(groupPoor)" "-0.0772462585348352" "-0.25
##   ..$ gamma0             : chr [1:24] "spl_hazard_2" "gamma0" "-3.98129140079743" "-6.29287630646042
##   ..$ gamma1             : chr [1:24] "spl_hazard_2" "gamma1" "5.57246906818651" "-3.04982227896694"
```

```
##   ..$ gamma2             : chr [1:24] "spl_hazard_2" "gamma2" "0.256338265058247" "-3.08497801538128
##   ..$ gamma3             : chr [1:24] "spl_hazard_2" "gamma3" "0.289633438971024" "-2.6933860504839"
##   ..$ groupMedium        : chr [1:24] "spl_hazard_2" "groupMedium" "2.91628215953512" "0.44776511920
##   ..$ groupPoor          : chr [1:24] "spl_hazard_2" "groupPoor" "2.88242174914437" "0.5215821498416
##   ..$ gamma1(groupMedium): chr [1:24] "spl_hazard_2" "gamma1(groupMedium)" "0.783631054627367" "-8.2
##   ..$ gamma1(groupPoor)  : chr [1:24] "spl_hazard_2" "gamma1(groupPoor)" "-2.64531056845819" "-11.32
##   ..$ gamma2(groupMedium): chr [1:24] "spl_hazard_2" "gamma2(groupMedium)" "1.65006763421488" "-1.898
##   ..$ gamma2(groupPoor)  : chr [1:24] "spl_hazard_2" "gamma2(groupPoor)" "0.0774625317935244" "-3.313
##   ..$ gamma3(groupMedium): chr [1:24] "spl_hazard_2" "gamma3(groupMedium)" "-1.90693272459592" "-5.1
##   ..$ gamma3(groupPoor)  : chr [1:24] "spl_hazard_2" "gamma3(groupPoor)" "-0.404156251325355" "-3.45
##   ..$ gamma0             : chr [1:24] "spl_odds_2" "gamma0" "-4.02185633708958" "-6.3825076933676" .
##   ..$ gamma1             : chr [1:24] "spl_odds_2" "gamma1" "5.51052878336718" "-3.19361337561952" .
##   ..$ gamma2             : chr [1:24] "spl_odds_2" "gamma2" "0.253140292086233" "-3.16417940172001"
##   ..$ gamma3             : chr [1:24] "spl_odds_2" "gamma3" "0.26119991232863" "-2.81390126847145" .
##   ..$ groupMedium        : chr [1:24] "spl_odds_2" "groupMedium" "3.02298542925585" "0.4777940040656
##   ..$ groupPoor          : chr [1:24] "spl_odds_2" "groupPoor" "2.89341134948443" "0.46717570677471"
##   ..$ gamma1(groupMedium): chr [1:24] "spl_odds_2" "gamma1(groupMedium)" "1.0315946008094" "-8.13093
##   ..$ gamma1(groupPoor)  : chr [1:24] "spl_odds_2" "gamma1(groupPoor)" "-2.61699779061024" "-11.3869
##   ..$ gamma2(groupMedium): chr [1:24] "spl_odds_2" "gamma2(groupMedium)" "1.80086631783035" "-1.8636
##   ..$ gamma2(groupPoor)  : chr [1:24] "spl_odds_2" "gamma2(groupPoor)" "-0.0115893063326446" "-3.506
##   ..$ gamma3(groupMedium): chr [1:24] "spl_odds_2" "gamma3(groupMedium)" "-2.0827061335566" "-5.4192
##   ..$ gamma3(groupPoor)  : chr [1:24] "spl_odds_2" "gamma3(groupPoor)" "-0.339047547656046" "-3.5245
##   ..$ gamma0             : chr [1:24] "spl_normal_2" "gamma0" "-2.47954443170845" "-3.33706504973905
##   ..$ gamma1             : chr [1:24] "spl_normal_2" "gamma1" "1.1528048973128" "-1.19034788985897"
##   ..$ gamma2             : chr [1:24] "spl_normal_2" "gamma2" "-0.360056185826704" "-1.4568534247492
##   ..$ gamma3             : chr [1:24] "spl_normal_2" "gamma3" "0.489377045312761" "-0.58778806367312
##   ..$ groupMedium        : chr [1:24] "spl_normal_2" "groupMedium" "1.56460781348189" "0.5803556297
##   ..$ groupPoor          : chr [1:24] "spl_normal_2" "groupPoor" "1.63775064239602" "0.7237866888568
##   .. [list output truncated]
##  $ misc            :List of 7
##   ..$ form       :Class 'formula'  language Surv(years, status) ~ group
##   .. .. ..- attr(*, ".Environment")=<environment: 0x000001908400e180>
##   ..$ group_names: chr [1:3] "Good" "Medium" "Poor"
##   ..$ ngroups    : int 3
##   ..$ lbls       : chr [1:7] "Exponential" "Weibull" "Gompertz" "Log-normal" ...
##   ..$ lbls_spline: chr [1:9] "Hazard 1 knots" "Hazard 2 knots" "Hazard 3 knots" "Odds 1 knots" ...
##   ..$ lbls_cure  : chr [1:6] "Mixture cure Weibull" "Non-mixture cure Weibull" "Mixture cure Log-norm
##   ..$ cols_tp    : num 23
##  - attr(*, "class")= chr "PERSUADE"
## NULL
```

7. Session information

```
## R version 4.4.2 (2024-10-31 ucrt)
## Platform: x86_64-w64-mingw32/x64
## Running under: Windows 10 x64 (build 19045)
##
## Matrix products: default
##
##
## Random number generation:
##  RNG:     Mersenne-Twister
##  Normal:  Inversion
##  Sample:  Rejection
##
## attached base packages:
## [1] splines   stats     graphics  grDevices utils     datasets  methods   base
##
## other attached packages:
##  [1] docstring_1.0.0    flexsurvcure_1.3.1 sft_2.2-1          SuppDists_1.1-9.8  fda_6.2.0          c
##  [7] fds_1.8            RCurl_1.98-1.16    rainbow_3.8        pcaPP_2.0-5        MASS_7.3-61        I
## [13] knitr_1.50         summarytools_1.1.4 data.table_1.16.4  survminer_0.5.0    ggpubr_0.6.0       g
## [19] muhaz_1.2.6.4      flexsurv_2.3.2     survival_3.7-0     rms_6.8-2          Hmisc_5.2-0
##
## loaded via a namespace (and not attached):
##   [1] rstudioapi_0.17.1   jsonlite_1.8.9      magrittr_2.0.3      TH.data_1.1-2       magick_2.8.5
##   [7] rmarkdown_2.29      vctrs_0.6.5         base64enc_0.1-3     tinytex_0.57        rstatix_0.7.2
##  [13] polspline_1.1.25    broom_1.0.8         Formula_1.2-5       sass_0.4.9          hdrcde_3.4
##  [19] KernSmooth_2.23-24  bslib_0.8.0         htmlwidgets_1.6.4   plyr_1.8.9          sandwich_3.1-1
##  [25] lubridate_1.9.3     cachem_1.1.0        commonmark_1.9.5    lifecycle_1.0.4     pkgconfig_2.0.3
##  [31] R6_2.5.1            fastmap_1.2.0       digest_0.6.37       numDeriv_2016.8-1.1 colorspace_2.1-
##  [37] km.ci_0.5-6         timechange_0.3.0    abind_1.4-8         compiler_4.4.2      withr_3.0.2
##  [43] htmlTable_2.4.3     backports_1.5.0     carData_3.0-5       ggsignif_0.6.4      quantreg_5.99
##  [49] foreign_0.8-87      mstate_0.3.3        nnet_7.3-19         glue_1.8.0          quadprog_1.5-8
##  [55] gridtext_0.1.5      grid_4.4.2          checkmate_2.3.2     cluster_2.1.6       reshape2_1.4.4
##  [61] gtable_0.3.6        KMsurv_0.1-5        tidyr_1.3.1         xml2_1.3.6          car_3.1-3
##  [67] pillar_1.10.0       stringr_1.5.1       dplyr_1.1.4         ggtext_0.1.2        pryr_0.1.6
##  [73] SparseM_1.84-2      ks_1.14.3           tidyselect_1.2.1    gridExtra_2.3       svglite_2.1.3
##  [79] statmod_1.5.0       rapportools_1.1     matrixStats_1.5.0   stringi_1.8.4       yaml_2.3.10
##  [85] evaluate_1.0.1      codetools_0.2-20    tcltk_4.4.2         tibble_3.2.1        cli_3.6.3
##  [91] xtable_1.8-4        systemfonts_1.1.0   munsell_0.5.1       jquerylib_0.1.4     roxygen2_7.3.2
##  [97] Rcpp_1.0.13-1       MatrixModels_0.5-3  mclust_6.1.1        bitops_1.0-9        viridisLite_0.4
## [103] scales_1.3.0        purrr_1.0.4         rlang_1.1.6         multcomp_1.4-26
```