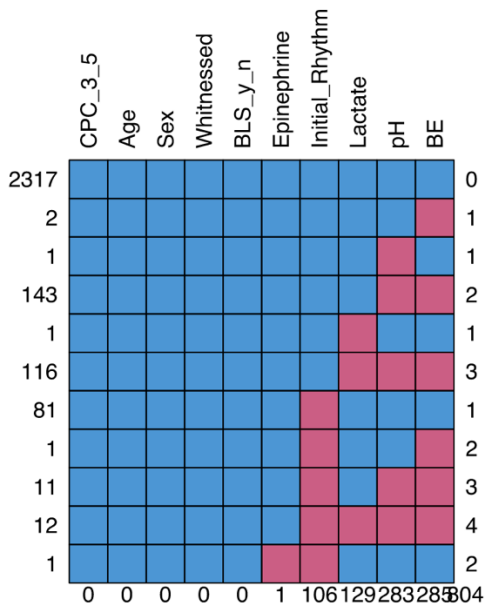
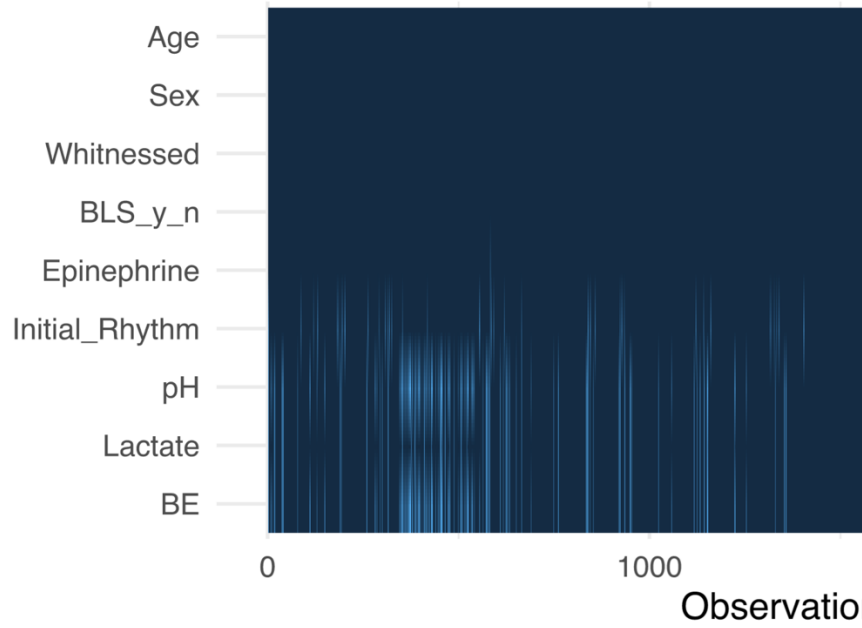


**Missing pattern figure, missing values map:**



**Missing values map**



**Models:**

**Model 1**

overall (n=2317)	OHCA				IHCA									
	Sig.	Exp(B)	99% C.I.for EXP(B)		Sig.	Exp(B)	99% C.I.for EXP(B)		Sig.	Exp(B)	99% C.I.for EXP(B)			
Age	.000	1.028	1.021	1.034	Age	.000	1.031	1.021	1.041	Age	.001	1.022	1.005	1.041
Sex	.131	1.182	.952	1.468	Sex	.080	1.258	.898	1.762	Sex	.972	.993	.573	1.720
Witness status	.000	1.825	1.341	2.483	Witness status	.000	1.839	1.191	2.839	Witness status	.902	1.066	.277	4.108
BLS	.000	2.189	1.705	2.809	BLS	.000	2.042	1.447	2.881	BLS	.146	3.536	.378	33.093
Initial Rhythm	.000	3.466	2.846	4.220	Initial Rhythm	.000	4.007	2.935	5.471	Initial Rhythm	.000	2.953	1.684	5.179
Adrenaline	.000	1.464	1.391	1.540	Adrenaline	.000	1.492	1.384	1.609	Adrenaline	.000	1.315	1.130	1.530
Constant	.000				Constant	.000				Constant	.000			

**Model 2**

overall (n=2317)	OHCA				IHCA									
	Sig.	Exp(B)	99% C.I.for EXP(B)		Sig.	Exp(B)	99% C.I.for EXP(B)		Sig.	Exp(B)	99% C.I.for EXP(B)			
Age	.000	1.033	1.024	1.042	Age	.000	1.036	1.026	1.047	Age	.001	1.026	1.007	1.046
Sex	.235	1.145	.853	1.538	Sex	.101	1.248	.881	1.766	Sex	.570	.880	.494	1.569
Witnessed	.001	1.729	1.143	2.616	Witnessed	.001	1.782	1.145	2.775	Witnessed	.961	.974	.241	3.939
BLS	.000	2.127	1.522	2.972	BLS	.000	2.040	1.437	2.897	BLS	.130	3.721	.397	34.860
Initial Rhythm	.000	2.804	2.132	3.688	Initial Rhythm	.000	3.190	2.294	4.435	Initial Rhythm	.001	2.163	1.176	3.977
Adrenaline	.000	1.307	1.218	1.402	Adrenaline	.000	1.345	1.242	1.457	Adrenaline	.017	1.160	.988	1.361
pH	.264	.563	.150	2.115	pH	.574	.702	.139	3.544	pH	.187	.293	.027	3.220
Lactate	.002	1.064	1.010	1.120	Lactate	.009	1.065	1.001	1.134	Lactate	.064	1.068	.974	1.171
BE	.018	.966	.930	1.003	BE	.103	.970	.925	1.018	BE	.097	.960	.902	1.023
Constant	.916				Constant	.761				Constant	.391			

Model 3	overall (n=2317)	99% C.I.for EXP(B)				OHCA	99% C.I.for EXP(B)				IHCA	99% C.I.for EXP(B)				
		Sig.	Exp(B)				Sig.	Exp(B)				Sig.	Exp(B)			
<b>pH</b>	<b>Overall</b>	pH	.001	.223	.090	.551	pH	.023	.284	.068	1188	pH	.013	.125	.015	1068
		Lactate	.000	1.116	1.077	1.157	Lactate	.000	1.133	1.070	1.199	Lactate	.019	1.082	.992	1.180
		BE	.012	.967	.942	.993	BE	.065	.970	.930	1.012	BE	.083	.961	.906	1.020
		Constant	.004				Constant	.049				Constant	.020			
<b>Lactate</b>	<b>Overall</b>	pH	.000	.012	.006	.024	pH	.000	.011	.005	.026	pH	.000	.013	.003	.060
		Constant	.000				Constant	.000				Constant	.000			
<b>BE</b>	<b>Overall</b>	Lactate	.000	1.213	1.176	1.250	Lactate	.000	1.218	1.177	1.262	Lactate	.000	1.194	1.119	1.275
		Constant	.000				Constant	.000				Constant	.000			
<b>BE</b>	<b>Overall</b>	BE	.000	.884	.867	.902	BE	.000	.881	.861	.902	BE	.000	.894	.860	.930
		Constant	.000				Constant	.000				Constant	.000			

**Variance inflation factor (VIF) values:**

**Variance Inflation Factor (VIF)**

	overall		OHCA		IHCA	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Age	1,033275	1,088946	1,040486	1,091617	1,040486	1,091617
Sex	1,026764	1,037321	1,035962	1,053828	1,035962	1,053828
Whitnessed	1,055741	1,053022	1,052662	1,049571	1,052662	1,049571
BLS	1,04622	1,045688	1,032545	1,033724	1,032545	1,033724
Epinephrine	1,016245	1,202335	1,015359	1,211541	1,015359	1,211541
Initial Rhythm	1,032581	1,101646	1,062224	1,142134	1,062224	1,142134
Lactate		2,724514		3,080838		3,080838
pH		2,930246		3,233254		3,233254
BE		3,21605		3,716224		3,716224
Maximum	3,716224					

## Multiple imputations:

### Significant codes:

\*\*\* = 0.001

\*\* = 0.01

\* = 0.05

#### IHCA, Model 1

**1**

Coefficients:	Estimate	Std,	Error	z	value
(Intercept)	-3,338896	0,47676	-7,003	2,50E-12	***
Age	0,027011	0,006603	4,091	4,30E-05	***
Sex	0,083878	0,198541	0,422	0,673	
Witnessed	0,378068	0,468933	0,806	0,42	
BLS_y_n	0,909376	0,709122	1,282	0,2	
Epinephrine	0,340697	0,057453	5,93	3,03E-09	***
Initial_Rhythm	1,426981	0,209415	6,814	9,48E-12	***

#### IHCA, Model 1, mean

Coefficients:	Estimate	z	value
(Intercept)	-2,80976383	1,75E-12	***
Age	0,02291117	2,91E-05	***
Sex	0,06979167	5,62E-01	
Witnessed	0,26337333	4,17E-01	
BLS_y_n	0,77942483	1,55E-01	
Epinephrine	0,28587217	2,13E-09	***
Initial_Rhythm	1,1449036	9,36E-12	***

**2**

Coefficients:	Estimate	Std,	Error	z	value
(Intercept)	-3,381631	0,479801	-7,048	1,82E-12	***
Age	0,027716	0,006629	4,181	2,90E-05	***
Sex	0,059395	0,198802	0,299	0,765	
Witnessed	0,303895	0,468232	0,649	0,516	
BLS_y_n	0,939914	0,707689	1,328	0,184	
Epinephrine	0,343689	0,057504	5,977	2,28E-09	***
Initial_Rhythm	1,432547	0,209855	6,826	8,71E-12	***

**3**

<b>Coefficients:</b>	<b>Estimate</b>	<b>Std,</b>	<b>Error</b>	<b>z</b>	<b>value</b>
(Intercept)	-3,416447	0,481929	-7,089	1,35E-12	***
Age	0,028138	0,006636	4,24	2,23E-05	***
Sex	0,082989	0,19873	0,418	0,676	
Witnessed	0,304684	0,468144	0,651	0,515	
BLS_y_n	0,942231	0,707559	1,332	0,183	
Epinephrine	0,341299	0,057395	5,946	2,74E-09	***
Initial_Rhythm	1,460875	0,209644	6,968	3,21E-12	***

**4**

<b>Coefficients:</b>	<b>Estimate</b>	<b>Std,</b>	<b>Error</b>	<b>z</b>	<b>value</b>
(Intercept)	-3,373397	0,480429	-7,022	2,19E-12	***
Age	0,027065	0,006654	4,067	4,76E-05	***
Sex	0,101413	0,199711	0,508	0,612	
Witnessed	0,290584	0,468755	0,62	0,535	
BLS_y_n	0,962479	0,708625	1,358	0,174	
Epinephrine	0,340268	0,05749	5,919	3,24E-09	***
Initial_Rhythm	1,482003	0,209292	7,081	1,43E-12	***

**5**

<b>Coefficients:</b>	<b>Estimate</b>	<b>Std,</b>	<b>Error</b>	<b>z</b>	<b>value</b>
(Intercept)	-3,348212	0,478585	-6,996	2,63E-12	***
Age	0,027537	0,006626	4,156	3,24E-05	***
Sex	0,091075	0,198343	0,459	0,646	
Witnessed	0,303009	0,466357	0,65	0,516	
BLS_y_n	0,922549	0,705658	1,307	0,191	
Epinephrine	0,34928	0,057767	6,046	1,48E-09	***
Initial_Rhythm	1,382987	0,207621	6,661	2,72E-11	***

**IHCA, Model 2**
**1**

Coefficients:	Estimate	Std,	Error	z	value
(Intercept)	1,431594	6,616048	0,216	0,82869	
Age	0,032362	0,00714	4,533	5,83E-06	***
Sex	-0,002191	0,20856	-0,011	0,991618	
Witnessed	0,34661	0,478292	0,725	0,468646	
BLS_y_n	0,900405	0,690748	1,304	0,192397	
Epinephrine	0,2089	0,06044	3,456	0,000548	***
Initial_Rhythm	1,165994	0,221819	5,257	1,47E-07	***
pH	-0,775855	0,902559	-0,86	0,39	
Lactate	0,09405	0,034047	2,762	0,005738	**
BE	-0,034941	0,023413	-1,492	0,135593	

**IHCA, Model 2, mean**

Coefficients:	Estimate	z	value
(Intercept)	0,30320367	8,49E-01	
Age	0,02640683	1,01E-05	***
Sex	0,0011885	9,63E-01	
Witnessed	0,298513	4,58E-01	
BLS_y_n	0,76194283	1,88E-01	
Epinephrine	0,179623	3,75E-04	***
Initial_Rhythm	0,98574433	2,33E-07	***
pH	-0,52529433	4,78E-01	
Lactate	0,07369883	9,36E-03	**
BE	-0,035786	7,16E-02	

**2**

Coefficients:	Estimate	Std,	Error	z	value
(Intercept)	-0,810904	6,435035	-0,126	0,899721	
Age	0,030784	0,007151	4,305	1,67E-05	***
Sex	0,004827	0,208756	0,023	0,981552	
Witnessed	0,32304	0,481106	0,671	0,501932	
BLS_y_n	0,983466	0,702869	1,399	0,161748	
Epinephrine	0,219781	0,060161	3,653	0,000259	***
Initial_Rhythm	1,235538	0,222659	5,549	2,87E-08	***
pH	-0,467226	0,877236	-0,533	0,594303	
Lactate	0,085716	0,033621	2,549	0,010789	*
BE	-0,046932	0,023074	-2,034	0,041952	*

**3**

<b>Coefficients:</b>	<b>Estimate</b>	<b>Std,</b>	<b>Error</b>	<b>z</b>	<b>value</b>
(Intercept)	0,73017	6,399293	0,114	0,909157	
Age	0,031024	0,007142	4,344	1,40E-05	***
Sex	0,020087	0,208564	0,096	0,923275	
Witnessed	0,455475	0,48797	0,933	0,350609	
BLS_y_n	0,872074	0,695739	1,253	0,210042	
Epinephrine	0,215633	0,059964	3,596	0,000323	***
Initial_Rhythm	1,139979	0,22344	5,102	3,36E-07	***
pH	-0,672499	0,872775	-0,771	0,440985	
Lactate	0,088778	0,033996	2,611	0,009017	**
BE	-0,043221	0,023284	-1,856	0,063419	

**4**

<b>Coefficients:</b>	<b>Estimate</b>	<b>Std,</b>	<b>Error</b>	<b>z</b>	<b>value</b>
(Intercept)	1,80597	6,168646	0,293	0,769701	
Age	0,031906	0,007139	4,469	7,85E-06	***
Sex	0,002678	0,208176	0,013	0,989735	
Witnessed	0,370808	0,476823	0,778	0,436767	
BLS_y_n	0,880048	0,687043	1,281	0,200221	
Epinephrine	0,218599	0,060474	3,615	0,000301	***
Initial_Rhythm	1,119662	0,224714	4,983	6,27E-07	***
pH	-0,827327	0,841853	-0,983	0,325733	
Lactate	0,089114	0,033842	2,633	0,008457	**
BE	-0,040322	0,023183	-1,739	0,081977	



**5**

<b>Coefficients:</b>	<b>Estimate</b>	<b>Std,</b>	<b>Error</b>	<b>z</b>	<b>value</b>
(Intercept)	-1,337608	6,442898	-0,208	0,835534	
Age	0,032365	0,007162	4,519	6,22E-06	***
Sex	-0,01827	0,209196	-0,087	0,930405	
Witnessed	0,295145	0,474483	0,622	0,533919	
BLS_y_n	0,935664	0,688156	1,36	0,173934	
Epinephrine	0,214825	0,061174	3,512	0,000445	***
Initial_Rhythm	1,253293	0,225195	5,565	2,62E-08	***
pH	-0,408859	0,87679	-0,466	0,640991	
Lactate	0,084535	0,033957	2,489	0,012792	*
BE	-0,0493	0,023394	-2,107	0,035081	*

OHCA, Model 1						
	Coefficients:	Estimate	Std,	Error	z	value
<b>1</b>	(Intercept)	-3,25934	0,23553	13,838	2,00E-16	***
	Age	0,02852	0,00345	8,267	2,00E-16	***
	Sex	0,17989	0,12216	1,473	0,140869	
	Witnessed	0,56208	0,15836	3,549	0,000386	***
	BLS_y_n	0,76678	0,12872	5,957	2,57E-09	***
	Epinephrine	0,43411	0,02797	15,518	2,00E-16	***
	Initial_Rhythm	1,46096	0,11286	12,945	2,00E-16	***

OHCA, Model 1, mean			
Coefficient	Estimate	z	value
(Intercept)	-3,248252	2,00E-16	***
Age	0,0284072	2,40E-16	***
Sex	0,1805986	1,39E-01	
Witnessed	0,5670806	3,45E-04	***
BLS_y_n	0,7701818	2,10E-09	***
Epinephrine	0,435103	2,00E-16	***
Initial_Rhythm	1,4336764	2,00E-16	***

	Coefficients:	Estimate	Std,	Error	z	value
<b>2</b>	(Intercept)	-3,262161	0,235399	13,858	2,00E-16	***
	Age	0,028844	0,003447	8,369	2,00E-16	***
	Sex	0,182128	0,121774	1,496	0,134753	
	Witnessed	0,583575	0,157995	3,694	0,000221	***
	BLS_y_n	0,763614	0,128388	5,948	2,72E-09	***
	Epinephrine	0,433195	0,027887	15,534	2,00E-16	***
	Initial_Rhythm	1,420253	0,112594	12,614	2,00E-16	***

	Coefficients:	Estimate	Std,	Error	z	value
<b>3</b>	(Intercept)	-3,250603	0,235193	13,821	2,00E-16	***
	Age	0,028389	0,003445	8,24	2,00E-16	***
	Sex	0,172159	0,12192	1,412	0,157932	
	Witnessed	0,571058	0,158481	3,603	0,000314	***
	BLS_y_n	0,771998	0,128509	6,007	1,89E-09	***
	Epinephrine	0,436107	0,027977	15,588	2,00E-16	***
	Initial_Rhythm	1,439857	0,112654	12,781	2,00E-16	***

**4**

<b>Coefficients:</b>	<b>Estimate</b>	<b>Std,</b>	<b>Error</b>	<b>z</b>	<b>value</b>
(Intercept)	-3,238782	0,234628	13,804	2,00E-16	***
Age	0,028199	0,003436	8,208	2,25E-16	***
Sex	0,18798	0,121692	1,545	0,122414	
Witnessed	0,559759	0,158009	3,543	0,000396	***
BLS_y_n	0,778717	0,128277	6,071	1,27E-09	***
Epinephrine	0,437088	0,027962	15,631	2,00E-16	***
Initial_Rhythm	1,413385	0,112184	12,599	2,00E-16	***

**5**

<b>Coefficients:</b>	<b>Estimate</b>	<b>Std,</b>	<b>Error</b>	<b>z</b>	<b>value</b>
(Intercept)	-3,230374	0,23506	13,743	2,00E-16	***
Age	0,028084	0,003448	8,146	3,77E-16	***
Sex	0,180836	0,121937	1,483	0,138067	
Witnessed	0,558931	0,158106	3,535	0,000408	***
BLS_y_n	0,7698	0,12845	5,993	2,06E-09	***
Epinephrine	0,435015	0,027972	15,552	2,00E-16	***
Initial_Rhythm	1,433927	0,112409	12,756	2,00E-16	***

**OHCA, Model 2**
**1**

Coefficients:	Estimate	Std,	Error	z	value
(Intercept)	-5,503962	4,315838	-1,275	0,202205	
Age	0,03366	0,003653	9,215	2,00E-16	***
Sex	0,191594	0,125698	1,524	0,127446	
Witnessed	0,521766	0,161691	3,227	0,001251	**
BLS_y_n	0,761317	0,131182	5,804	6,49E-09	***
Epinephrine	0,322622	0,029478	10,945	2,00E-16	***
Initial_Rhythm	1,181908	0,118701	9,957	2,00E-16	***
pH	0,175882	0,585546	0,3	0,763892	
Lactate	0,084105	0,022258	3,779	0,000158	***
BE	-0,03794	0,01721	-2,205	0,027488	*

**OHCA, Model 2 mean**

Coefficients:	Estimate	z	value
(Intercept)	-5,275805	2,22E-01	
Age	0,0335686	2,00E-16	***
Sex	0,1798832	1,54E-01	
Witnessed	0,5161356	1,45E-03	**
BLS_y_n	0,7634572	6,19E-09	***
Epinephrine	0,3264038	2,00E-16	***
Initial_Rhythm	1,2175584	2,00E-16	***
pH	0,146535	8,03E-01	
Lactate	0,0849706	1,45E-04	***
BE	-0,0338138	5,43E-02	

**2**

Coefficients:	Estimate	Std,	Error	z	value
(Intercept)	-5,434451	4,359792	-1,246	0,212583	
Age	0,032856	0,003632	9,047	2,00E-16	***
Sex	0,171733	0,126074	1,362	0,173149	
Witnessed	0,503512	0,161676	3,114	0,001844	**
BLS_y_n	0,769428	0,131074	5,87	4,35E-09	***
Epinephrine	0,328206	0,029569	11,1	2,00E-16	***
Initial_Rhythm	1,207661	0,118804	10,165	2,00E-16	***
pH	0,175306	0,590868	0,297	0,766701	
Lactate	0,083468	0,022023	3,79	0,000151	***
BE	-0,034355	0,017368	-1,978	0,047919	*

### 3

<b>Coefficients:</b>	<b>Estimate</b>	<b>Std,</b>	<b>Error</b>	<b>z</b>	<b>value</b>
(Intercept)	-4,779305	4,335211	-1,102	0,27027	
Age	0,034147	0,003652	9,349	2,00E-16	***
Sex	0,180091	0,126319	1,426	0,15396	
Witnessed	0,501477	0,161747	3,1	0,00193	**
BLS_y_n	0,760387	0,131635	5,776	7,63E-09	***
Epinephrine	0,328062	0,029364	11,172	2,00E-16	***
Initial_Rhythm	1,251452	0,119545	10,468	2,00E-16	***
pH	0,073013	0,588022	0,124	0,90118	
Lactate	0,091123	0,02241	4,066	4,78E-05	***
BE	-0,027228	0,017202	-1,583	0,11345	

### 4

<b>Coefficients:</b>	<b>Estimate</b>	<b>Std,</b>	<b>Error</b>	<b>z</b>	<b>value</b>
(Intercept)	-5,39849	4,312869	-1,252	0,210673	
Age	0,033938	0,003655	9,285	2,00E-16	***
Sex	0,183731	0,125867	1,46	0,144367	
Witnessed	0,524753	0,161866	3,242	0,001187	**
BLS_y_n	0,759733	0,131461	5,779	7,51E-09	***
Epinephrine	0,323343	0,029485	10,966	2,00E-16	***
Initial_Rhythm	1,237249	0,119067	10,391	2,00E-16	***
pH	0,159377	0,584947	0,272	0,785266	
Lactate	0,084215	0,022275	3,781	0,000156	***
BE	-0,035512	0,017309	-2,052	0,040198	*

<b>Coefficients:</b>	<b>Estimate</b>	<b>Std,</b>	<b>Error</b>	<b>z</b>	<b>value</b>
(Intercept)	-5,262817	4,238983	-1,242	0,21441	

# 5

Age	0,033242	0,003641	9,129	2,00E-16	***
Sex	0,172267	0,125781	1,37	0,17082	
Witnessed	0,52917	0,161441	3,278	0,00105	**
BLS_y_n	0,766421	0,131053	5,848	4,97E-09	***
Epinephrine	0,329786	0,029612	11,137	2,00E-16	***
Initial_Rhythm	1,209522	0,118986	10,165	2,00E-16	***
pH	0,149097	0,575262	0,259	0,7955	
Lactate	0,081942	0,022104	3,707	0,00021	***
BE	-0,034034	0,016784	-2,028	0,04258	*

**Multiple Imputations, AUC**

Imputation	IHCA, Model 1		IHCA, Model 2		Diff AUC	p-value
	AUC	CI 99%	AUC	CI 99%		
LogReg 1	0,778	0,7293-0,8266	0,815	0,7696-0,8595	0,037	< 0.001 *
LogReg 2	0,78	0,7316-0,8286	0,816	0,7717-0,8613	0,036	< 0.001 *
LogReg 3	0,779	0,7307-0,8279	0,815	0,7704-0,8602	0,036	< 0.001 *
LogReg 4	0,782	0,7338-0,8304	0,815	0,7694-0,8596	0,033	< 0.001 *
LogReg 5	0,778	0,7289-0,8264	0,817	0,7724-0,862	0,039	< 0.001 *
<b>Average</b>	0,7794		0,8156		0,0362	< 0.001 *

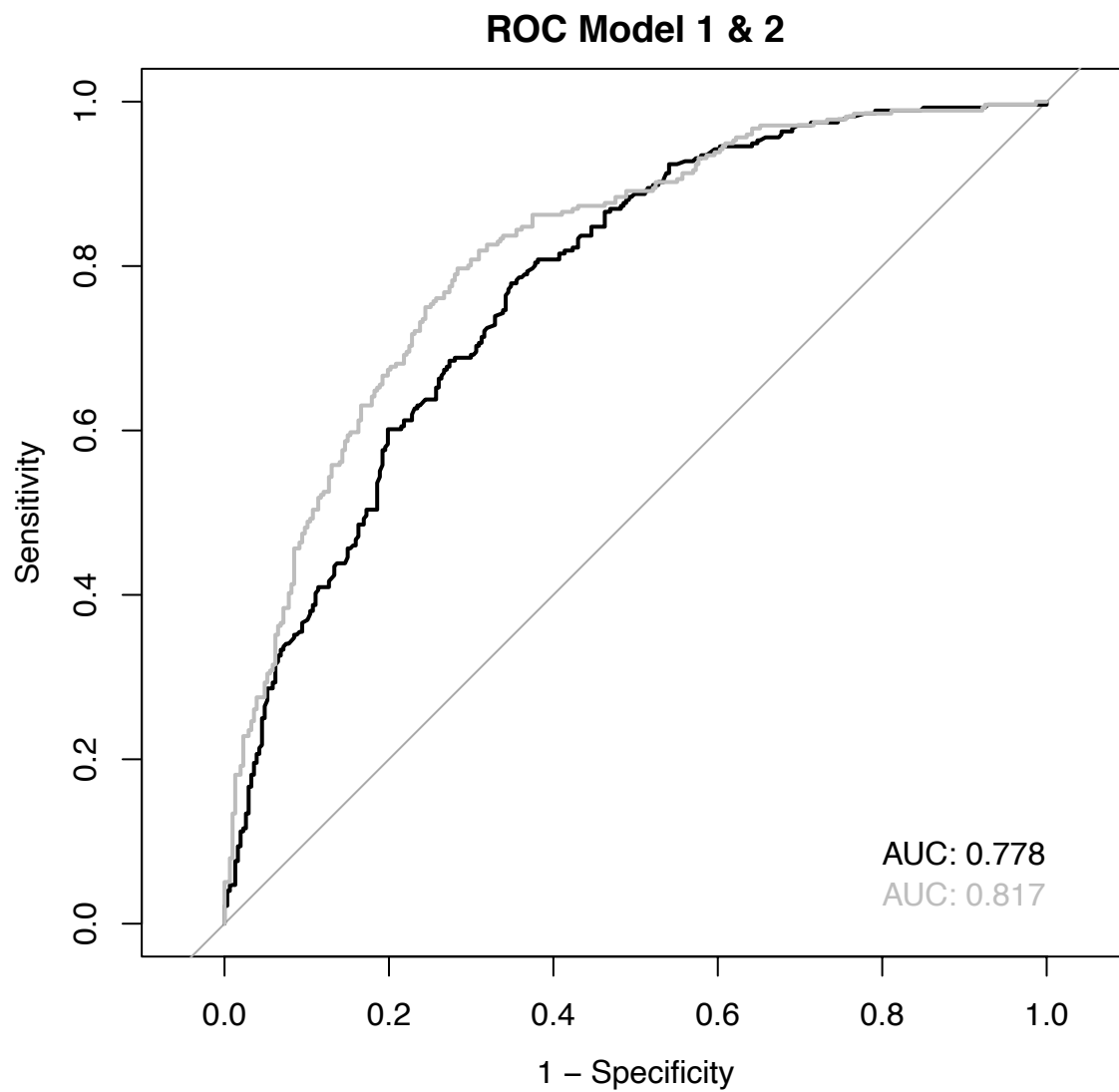
**Bonferroni correction:**

p = 0.01 -> p\_corr = 0.002

\* significant after Bonferroni correction

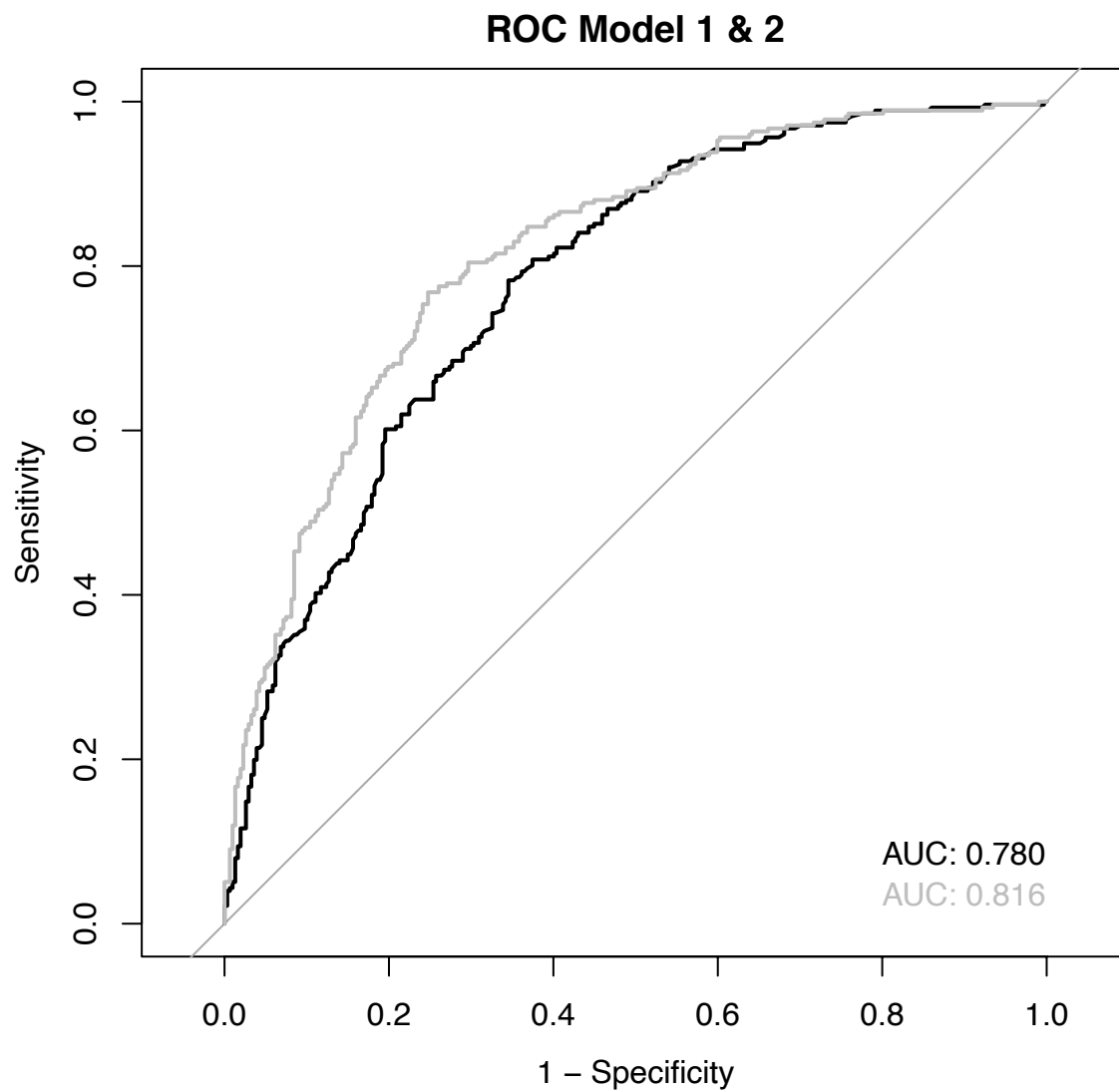
Imputation	OHCA, Model 1		OHCA, Model 2		Diff AUC	p-value
	AUC	CI 99%	AUC	CI 99%		
LogReg 1	0,836	0,8136-0,8586	0,845	0,8228-0,8663	0,009	0,003
LogReg 2	0,834	0,8117-0,857	0,844	0,8223-0,8659	0,01	0,002 *
LogReg 3	0,835	0,8126-0,8577	0,846	0,8247-0,868	0,011	0,001 *
LogReg 4	0,834	0,8116-0,8569	0,846	0,8242-0,8675	0,012	0,0025
LogReg 5	0,835	0,8122-0,8575	0,844	0,8219-0,8655	0,009	0,007
<b>Average</b>	0,835		0,845		0,010	0,003

IHCA LogReg 1

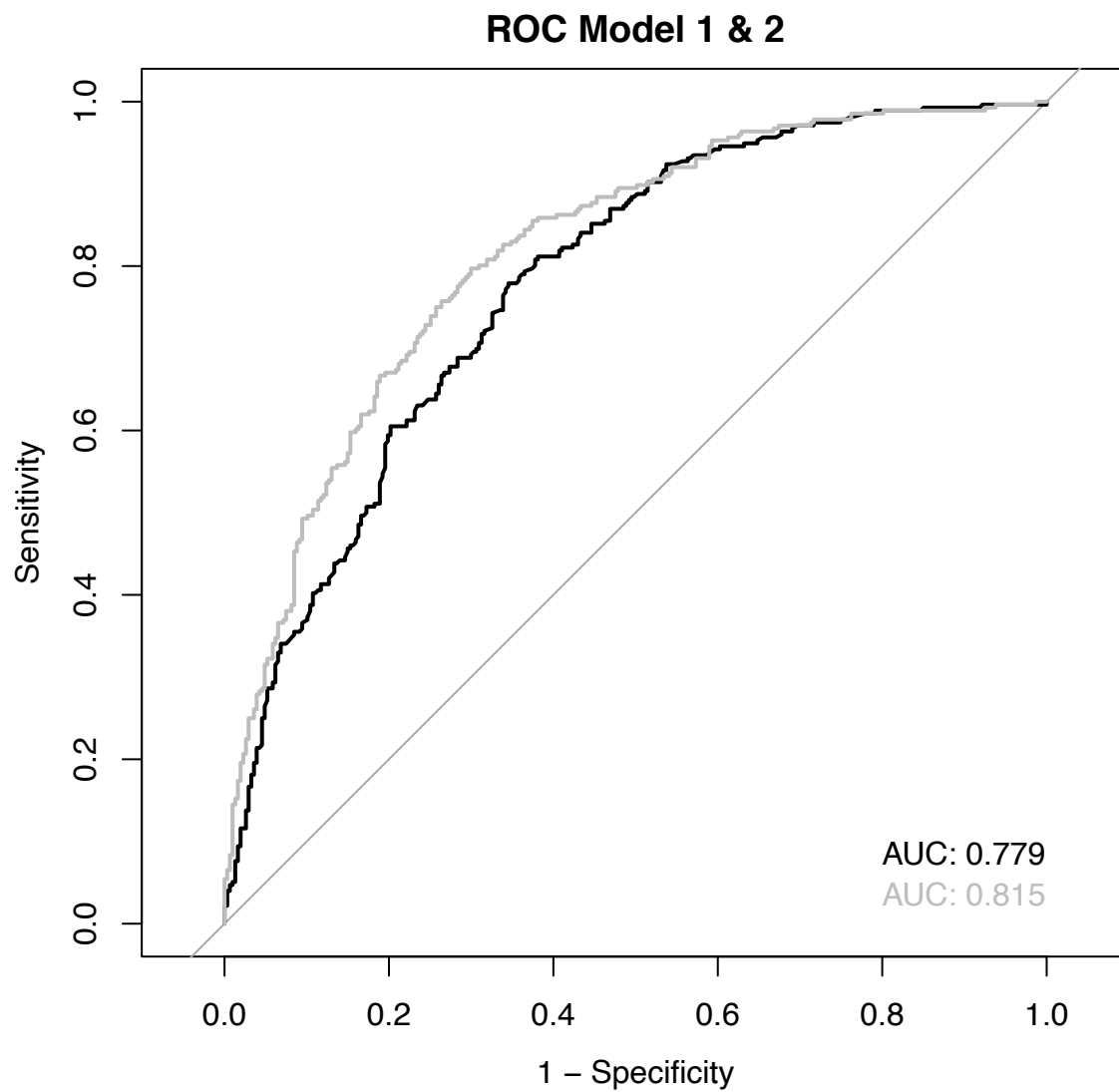




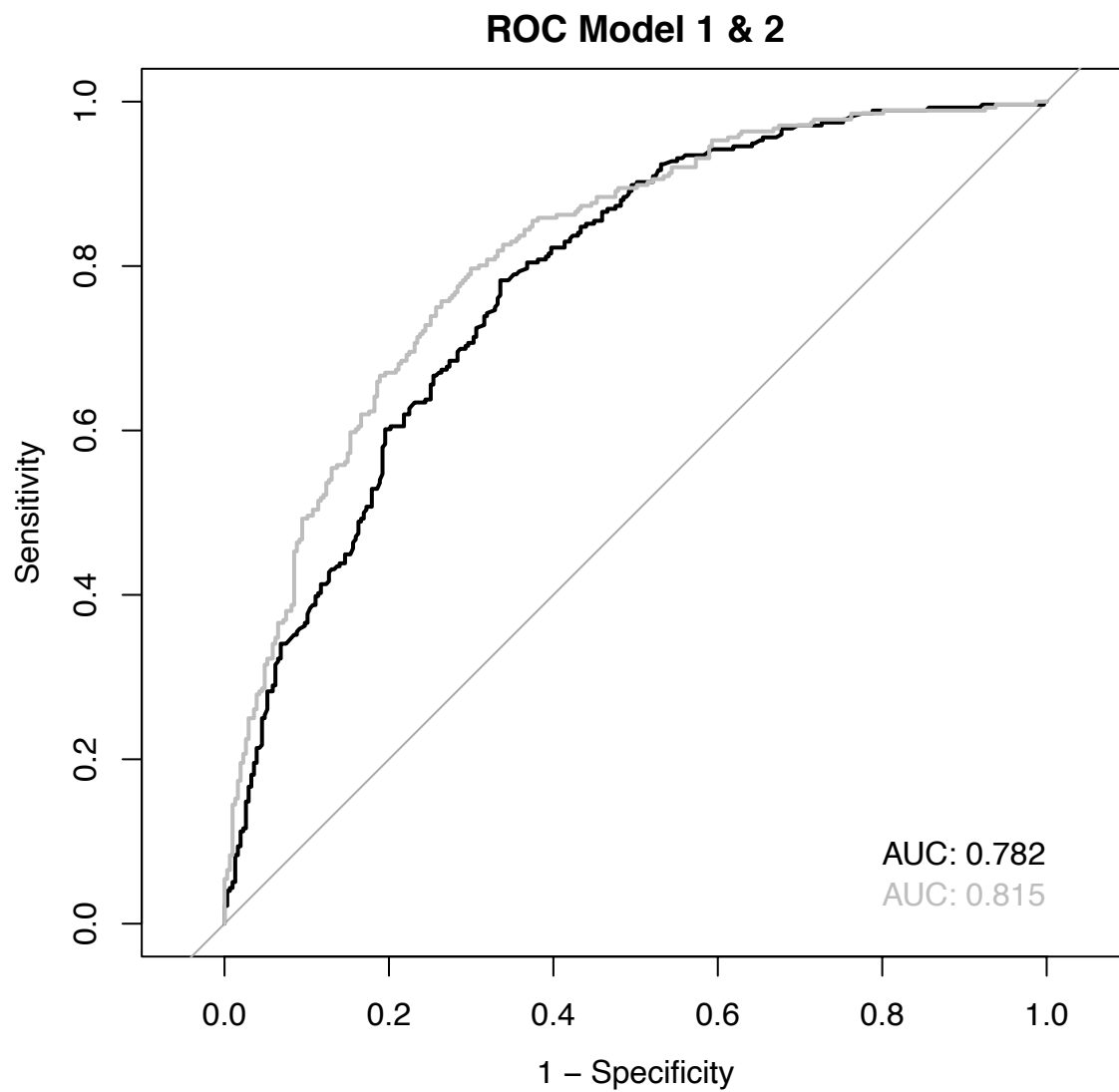
IHCA LogReg 2



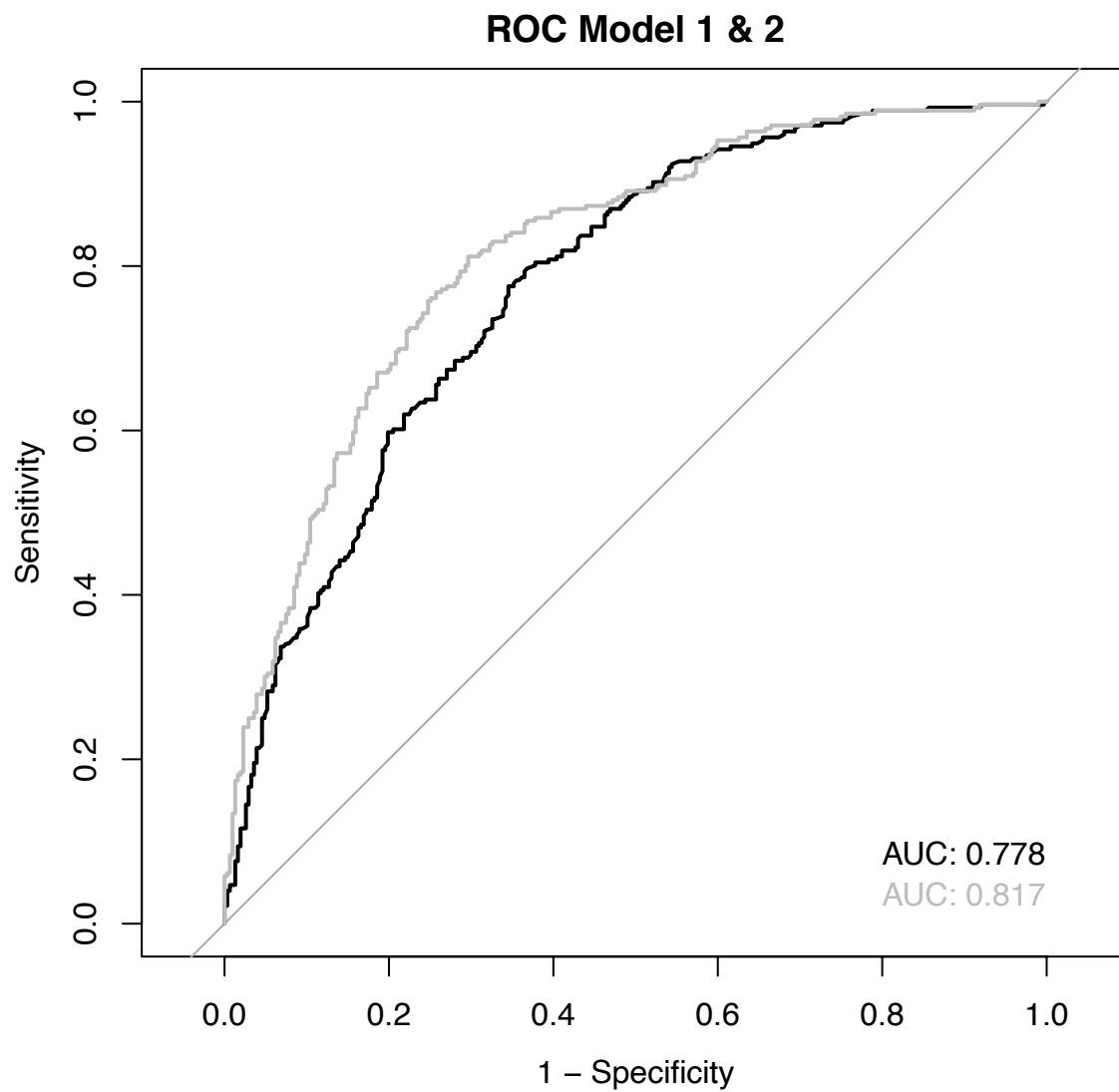
IHCA LogReg 3



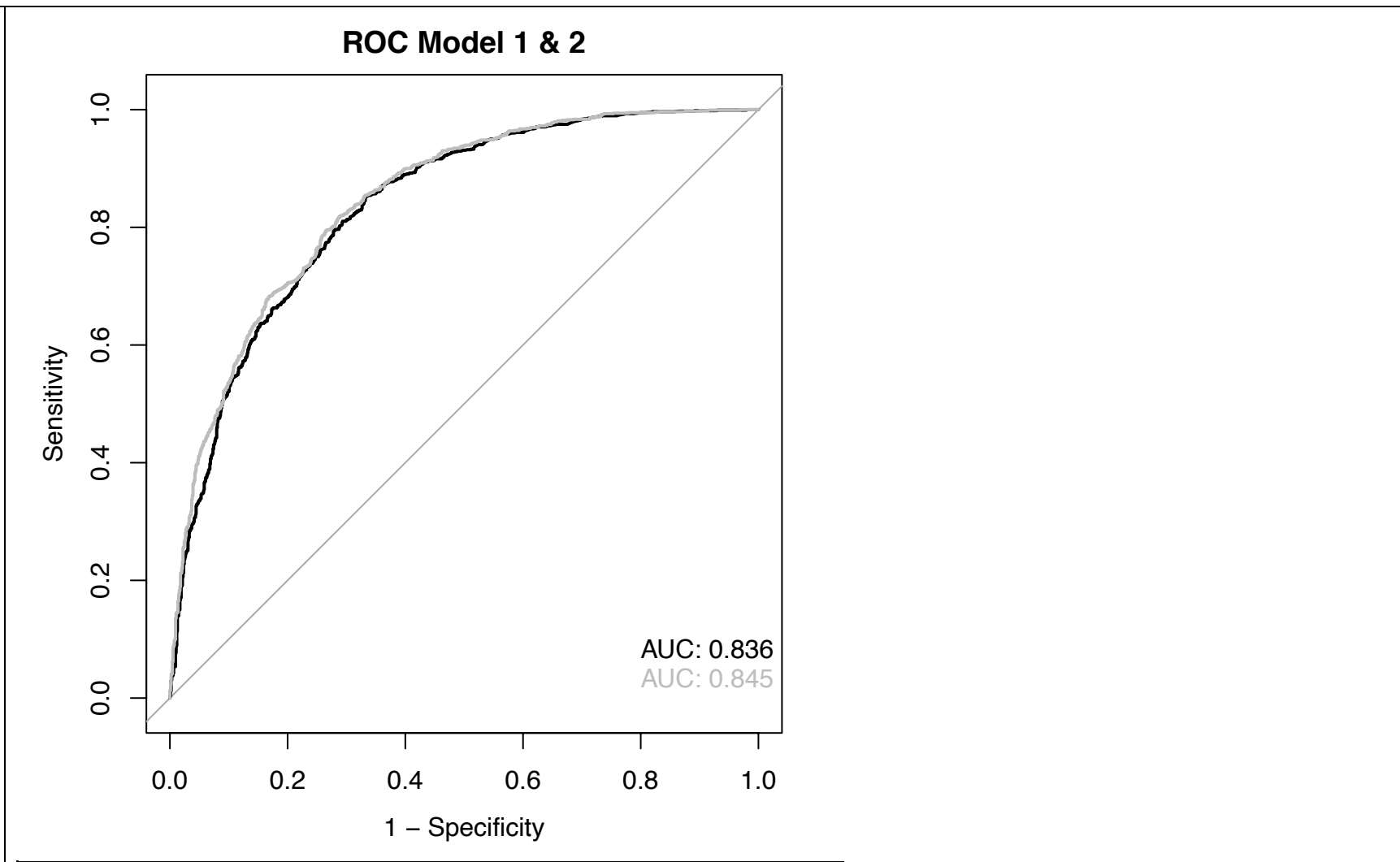
IHCA LogReg 4



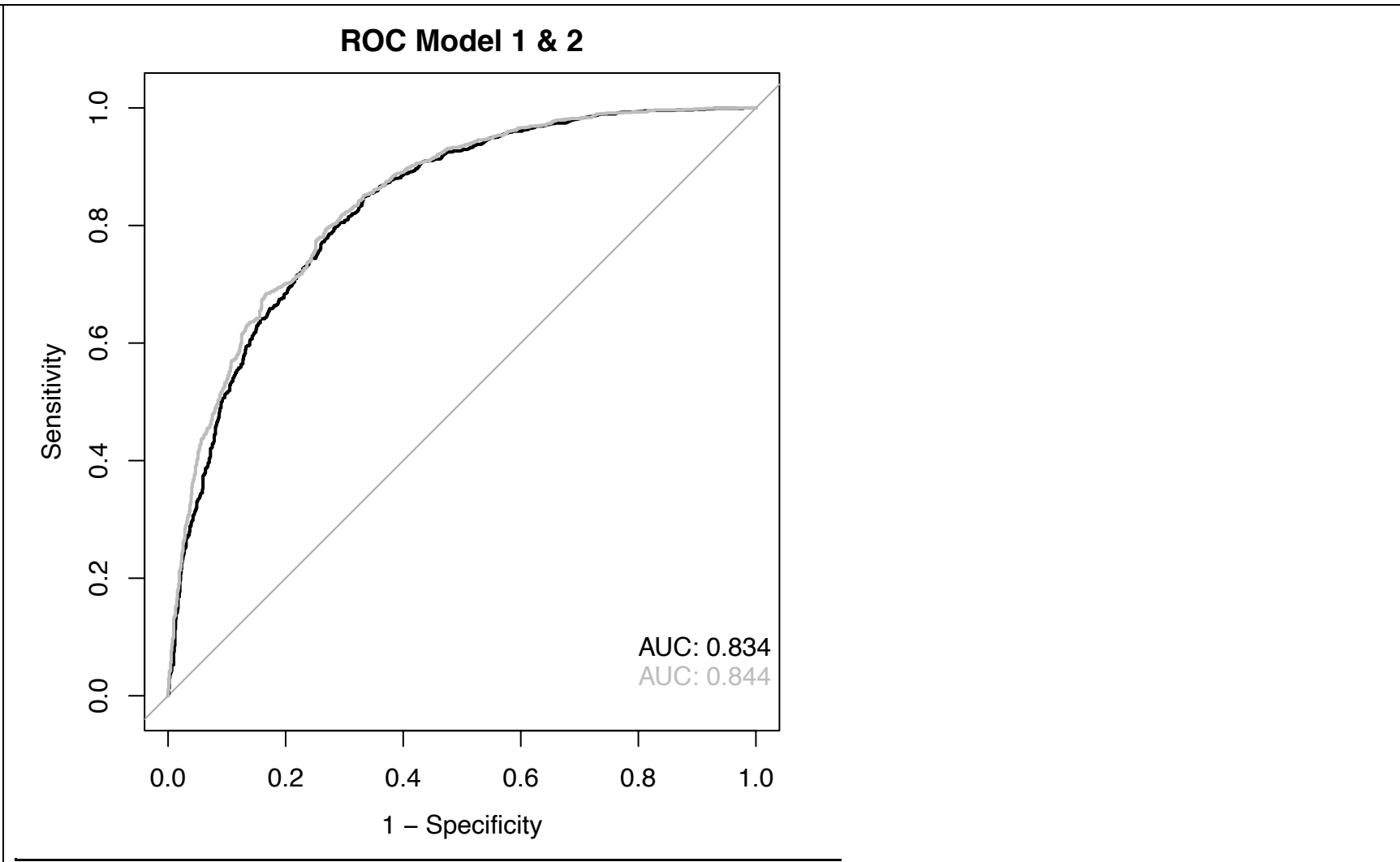
IHCA LogReg 5



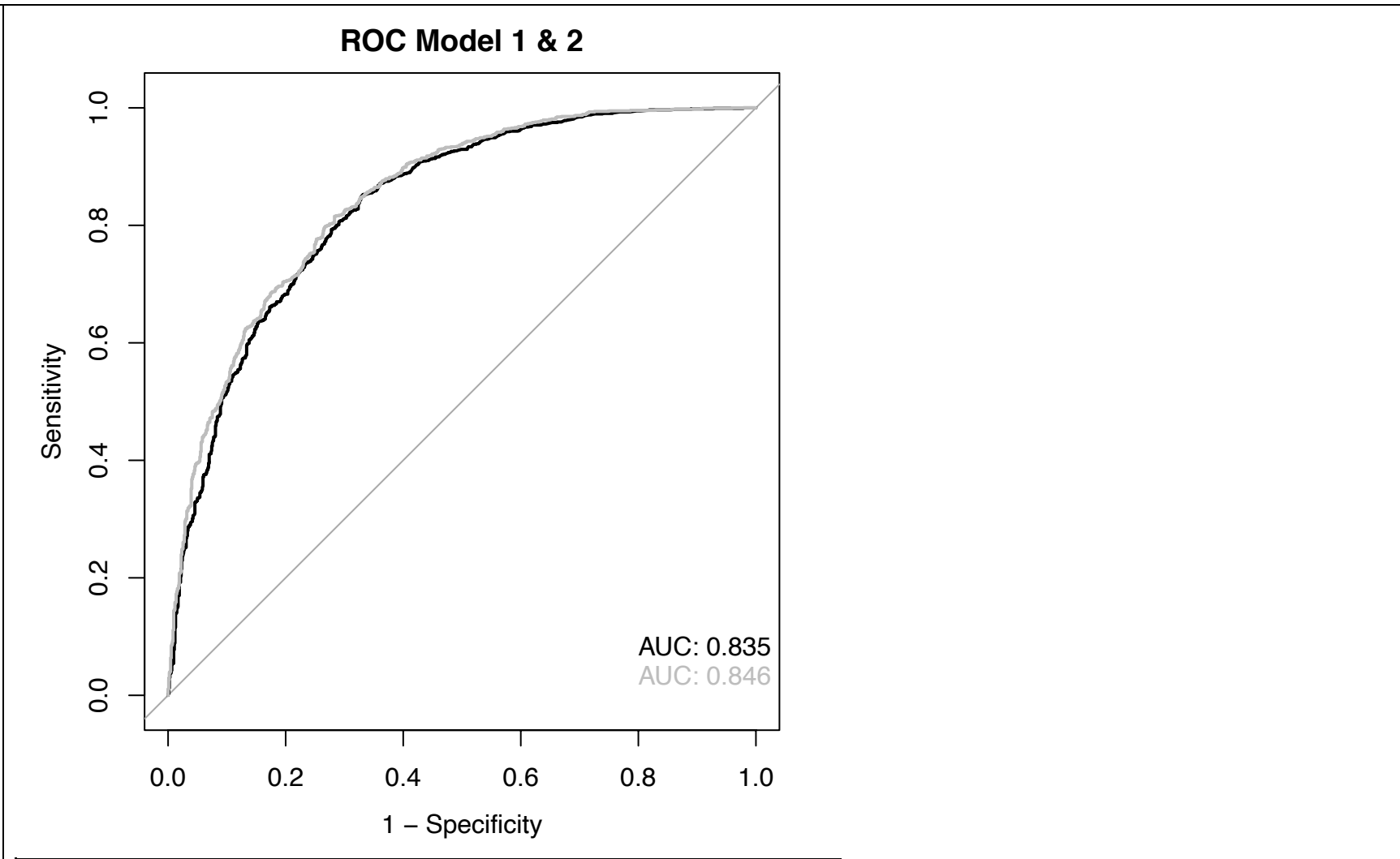
OHCA LogReg 1



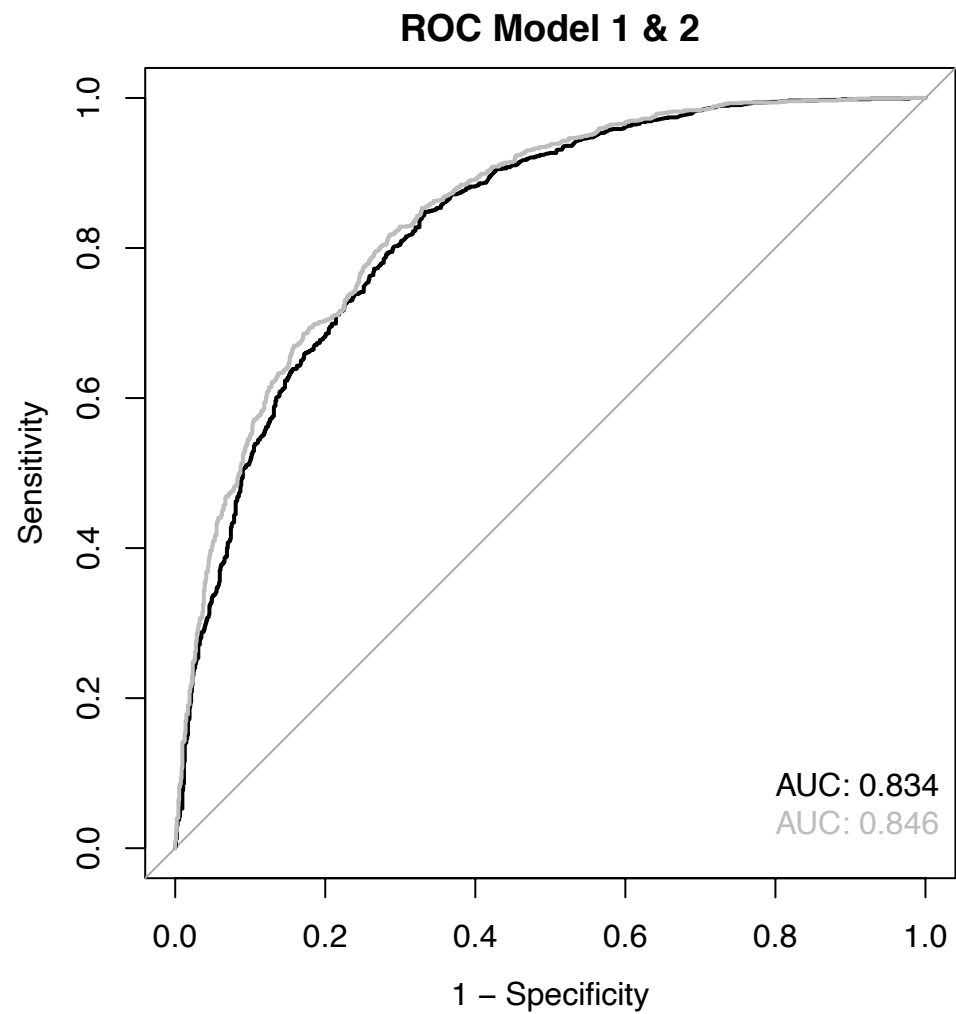
OHCA LogReg 2



**OHCA LogReg 3**



**OHCA LogReg 4**





OHCA LogReg 5

