

SENSITIVITY ANALYSIS 1

Parameters as per main analysis except for pulse oximetry sensitivity of 70% and specificity of 85% for diagnosing severe LRTI

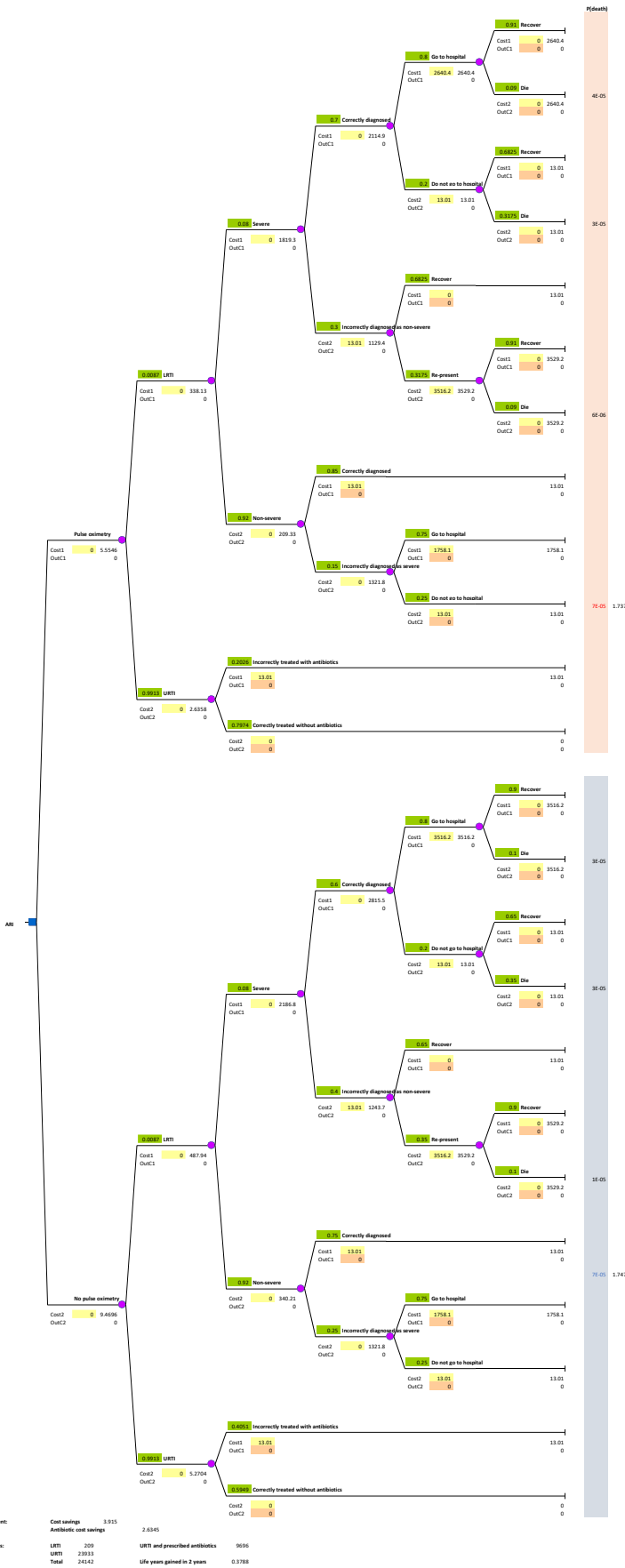
	Median age	No.	% H0 deaths in 2 years	H1 deaths in 2 years	Difference in deaths in 2 years	YLL for death at median age in 2 years	Life years gained in 2 years	Life years gained in 1 year	Cost difference excl. direct costs in 2 years	Cost difference excl. direct costs in 1 year	Cost difference incl. direct costs in 1 year	Cost per life year gained incl. direct costs	Cost per life year gained excl. direct costs	Antibiotic cost savings in 1 year
Children <5	2	14075	28.174	2.084451	2.072876	0.011575	77.155993	0.893059	0.446529	-60428.92958	-30214.46479	-5971.696792	-13373.58056	-11650.539
Children 5-14	8	11741	23.502	0.820555	0.815999	0.004556	71.593286	0.326211	0.163106	-44357.11225	-22178.55613			-14915.35
Adults	45	24142	48.325	1.747495	1.737791	0.009704	39.037158	0.378802	0.189401	-94515.22531	-47257.61266			-31801.351
Total	13	49958	100	4.652501	4.626666	0.025835	57.427888	1.598072	0.799036	-199301.2672	-99650.63358	-75407.86558		-58367.24

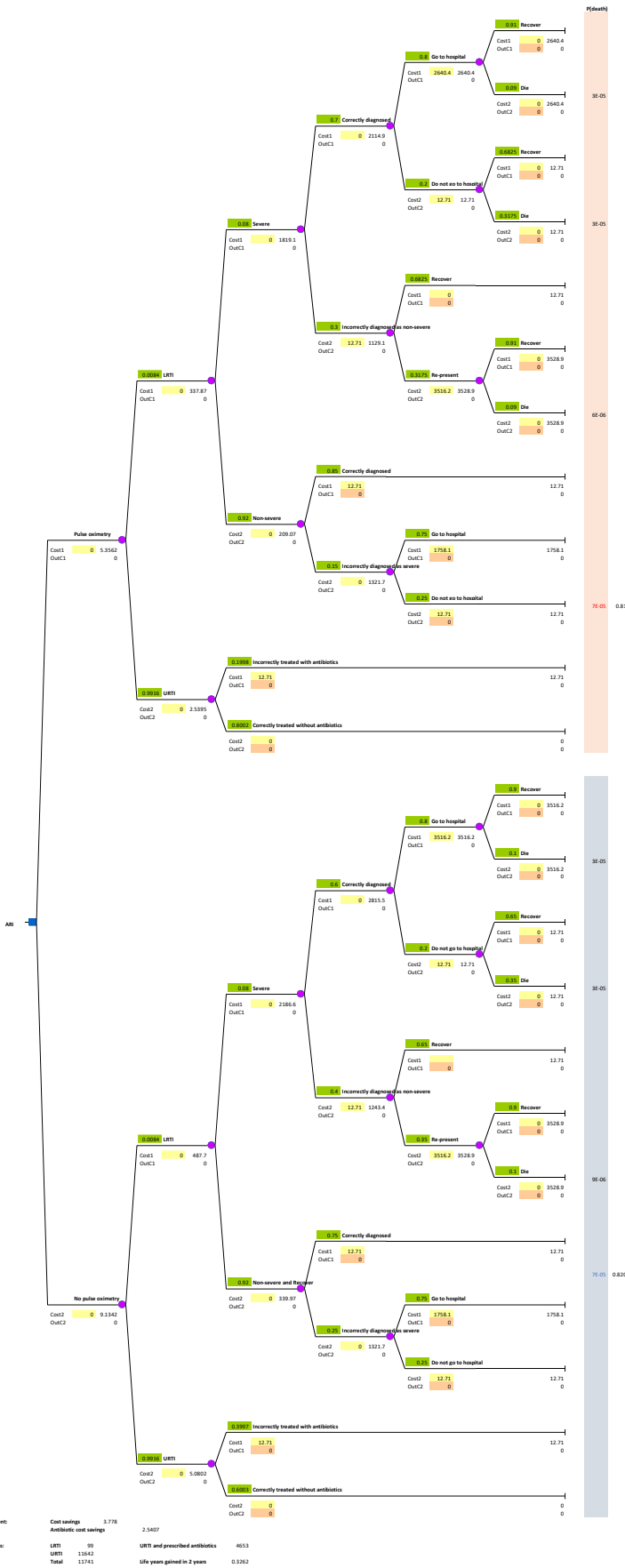
H0 - standard of care

H1 - standard of care + pulse oximetry

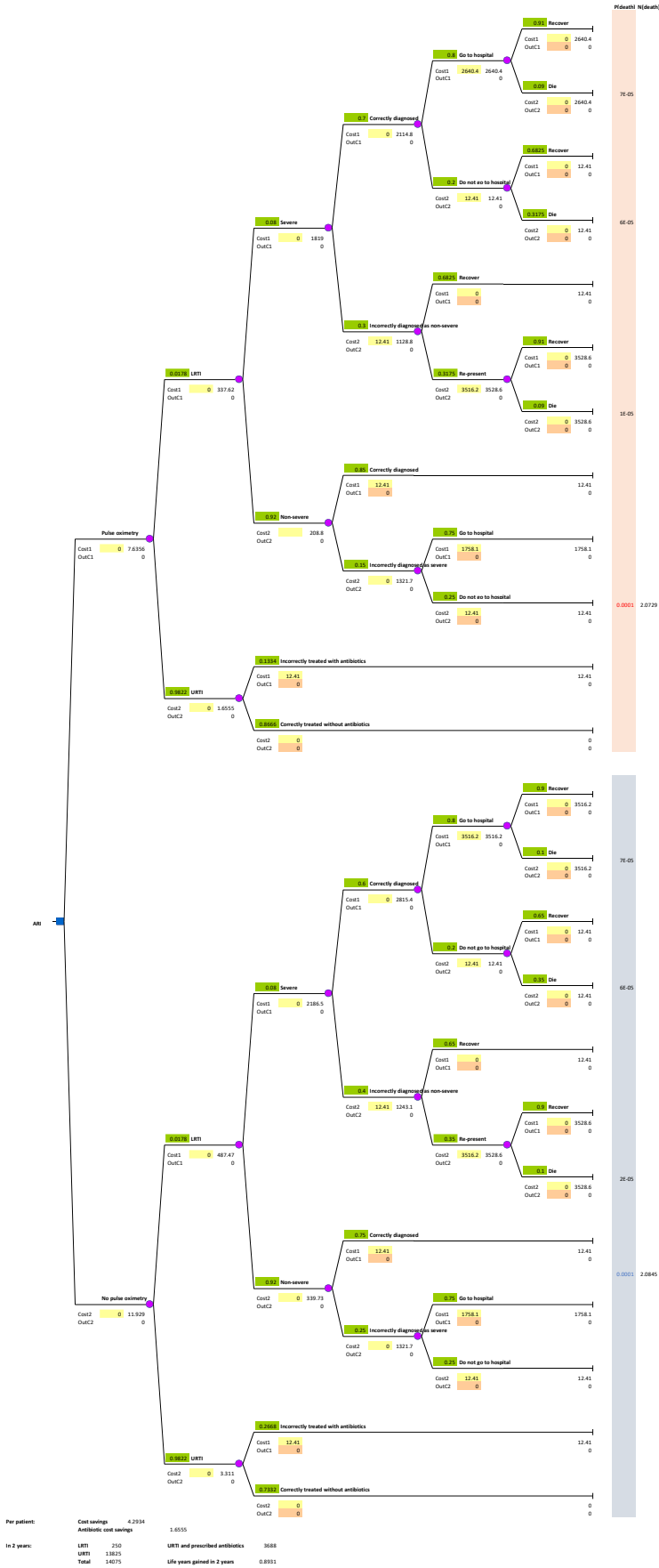
Assume lifespan of one oximeter is 2 years

Purchase price of one oximeter set plus neon	275
Maintenance cost of one oximeter set per year	55
District-wide training cost over 2 years	2649.504
Extra staff cost per PCU over two years	662.376
Total oximeter costs over 2 years	48485.536
Total oximeter costs over 1 year	24242.768





Per patient:	Cost savings	3.778
	Antibiotic cost savings	2.5407
In 2 years:	LRTI	99
	URT	13642
	Total	13741
	LRTI and prescribed antibiotics	4653
	Life years gained in 2 years	0.3262



SENSITIVITY ANALYSIS 2

Parameters as per main analysis, but with no reduction in LOS of admitted patients, reduction in antibiotic prescriptions of 25%, and no antibiotic resistance cost

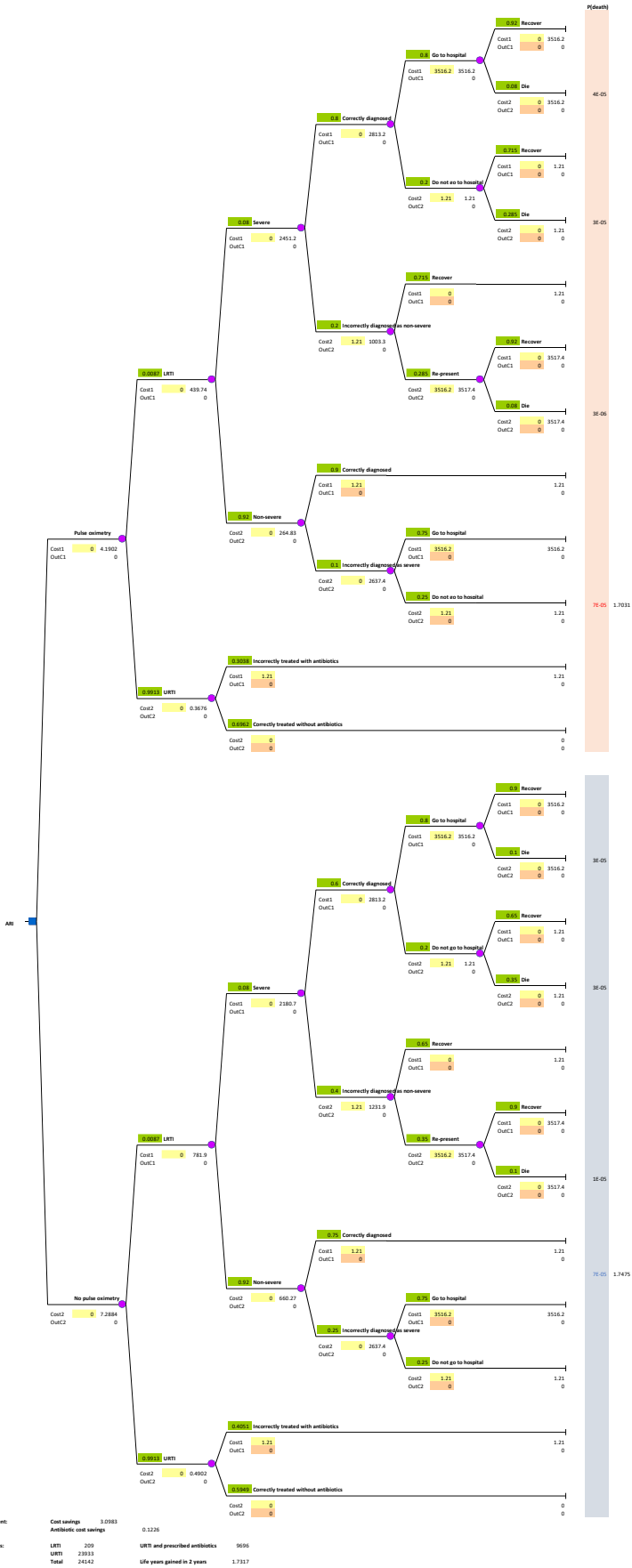
	Median age	No.	% H0 deaths in 2 years	H1 deaths in 2 years	Difference in deaths in 2 years	YLL for death at median age in 2 years	Life years gained in 2 years	Life years gained in 1 year	Cost difference excl. direct costs in 2 years	Cost difference excl. direct costs in 1 year	Cost difference incl. direct costs in 1 year	Cost per life year gained incl. direct costs	Cost per life year gained excl. direct costs	Antibiotic cost savings in 1 year
Children <5	2	14075	28.174	2.084451	2.031538	0.052913	77.155993	4.082554	2.041277	-86297.96671	-43148.98336	-18906.21536	-9261.953828	-286.33476
Children 5-14	8	11741	23.502	0.820555	0.799726	0.020829	71.593286	1.49125	0.745625	-34805.933	-17402.9665			-533.68128
Adults	45	24142	48.325	1.747495	1.703135	0.044359	39.037158	1.731668	0.865834	-74798.11997	-37399.05999			-1479.5787
Total	13	49958	100	4.652501	4.534399	0.118102	57.427888	7.305473	3.652736	-195902.0197	-97951.00984	-73708.24184		-2299.5947

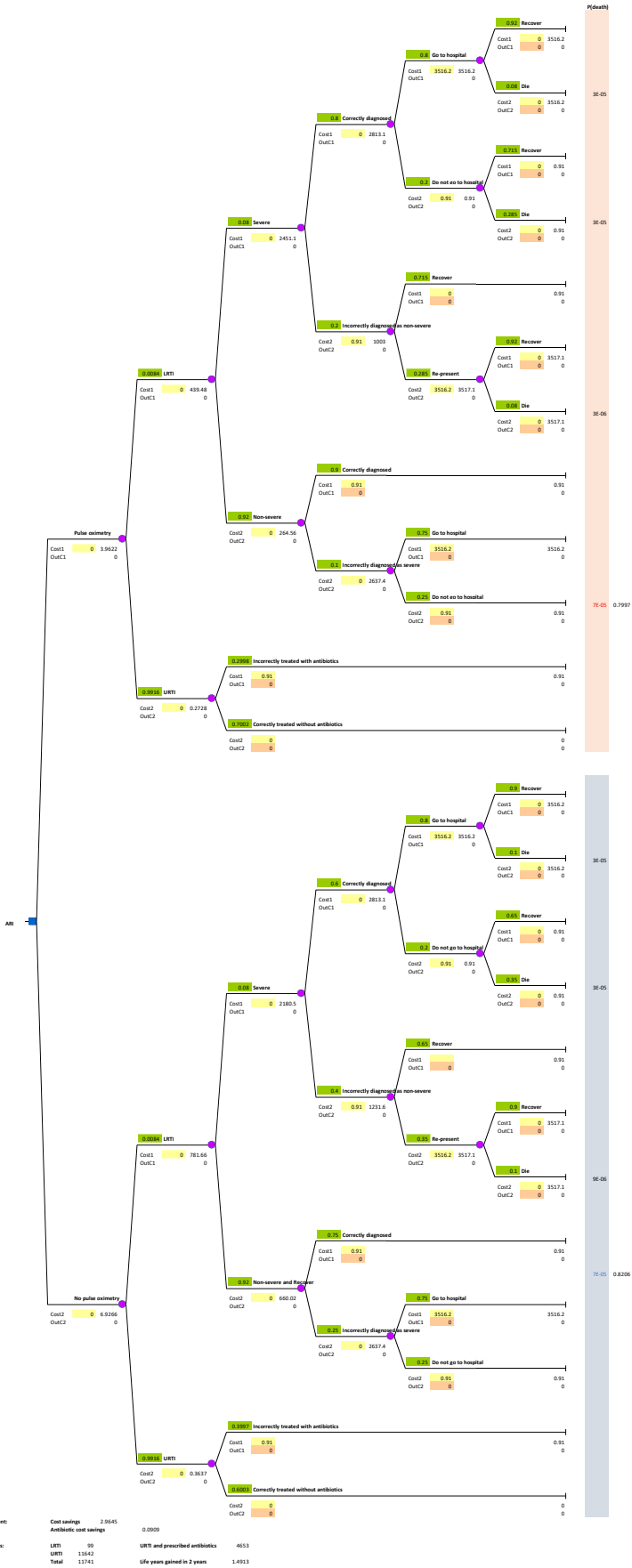
H0 - standard of care

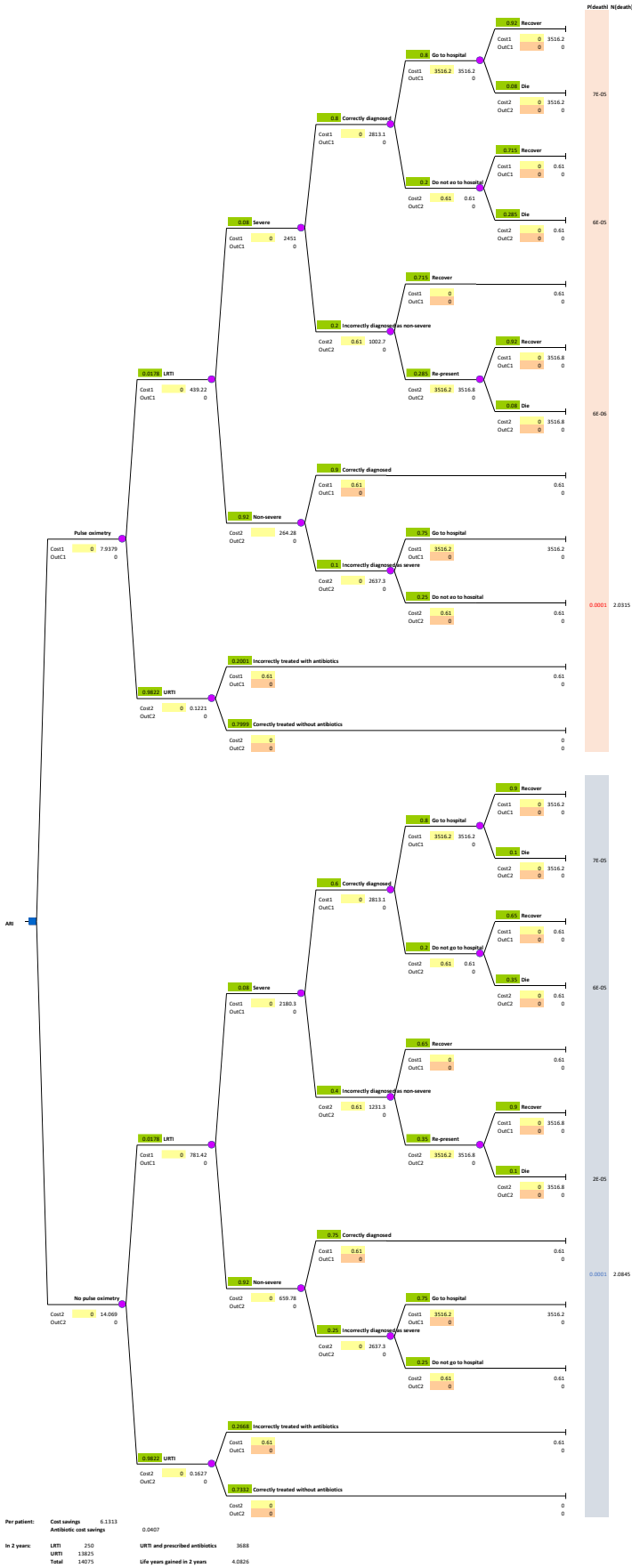
H1 - standard of care + pulse oximetry

Assume lifespan of one oximeter is 2 years

Purchase price of one oximeter set plus neona	275
Maintenance cost of one oximeter set per year	55
District-wide training cost over 2 years	2649.504
Extra staff cost per PCU over two years	662.376
Total oximeter costs over 2 years	48485.536
Total oximeter costs over 1 year	24242.768







SENSITIVITY ANALYSIS 3

Parameters as per SA2, except for sensitivity and specificity of pulse oximetry for diagnosing severe LRTI as per SA1

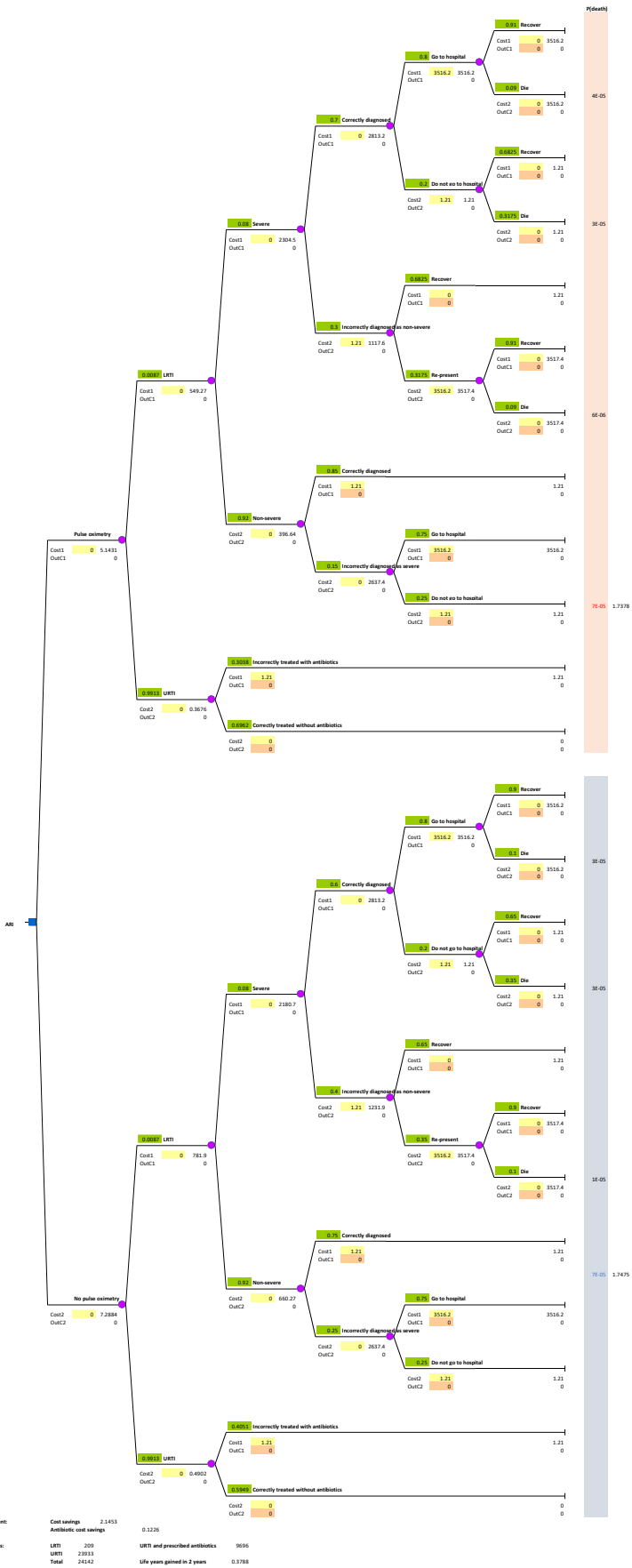
	Median age	No.	% H0 deaths in 2 years	H1 deaths in 2 years	Difference in deaths in 2 years	YLL for death at median age	Life years gained in 2 years	Life years gained in 1 year	Cost difference excl. direct costs in 2 years	Cost difference excl. direct costs in 1 year	Cost difference incl. direct costs in 1 year	Cost per life year gained incl. direct costs	Cost per life year gained excl. direct costs	Antibiotic cost savings in 1 year
Children <5	2	14075	28.174	2.084451	2.072876	0.011575	77.155993	0.893059	0.446529	-58852.6021	-29426.30105	-5183.533051	-11608.4924	286.334763
Children 5-14	8	11741	23.502	0.820555	0.815999	0.004556	71.593286	0.326211	0.163106	-23847.39656	-11923.69828		-73104.19967	533.681285
Adults	45	24142	48.325	1.747495	1.737791	0.009704	39.037158	0.378802	0.189401	-51792.90737	-25896.45368		-136728.0505	1479.57868
Total	13	49958	100	4.652501	4.626666	0.025835	57.427888	1.598072	0.799036	-134492.906	-67246.45302	-43003.68502		2299.59473

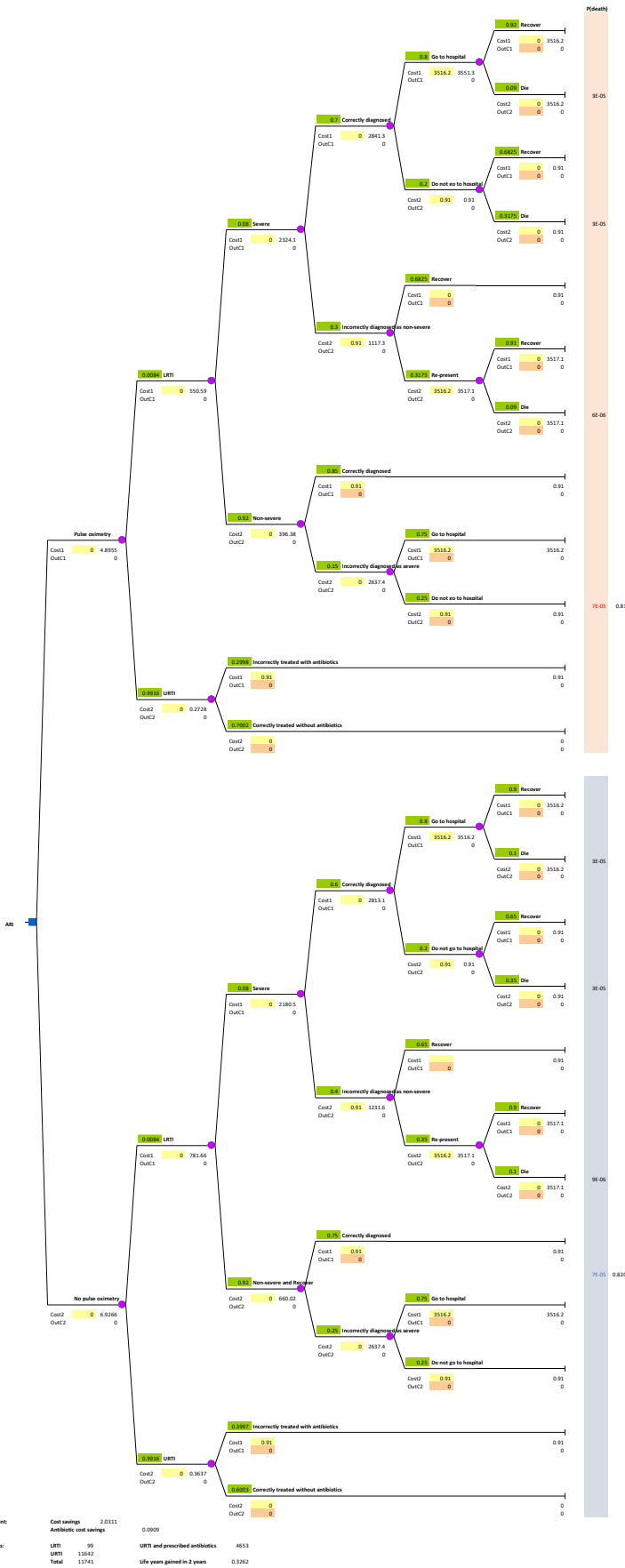
H0 - standard of care

H1 - standard of care + pulse oximetry

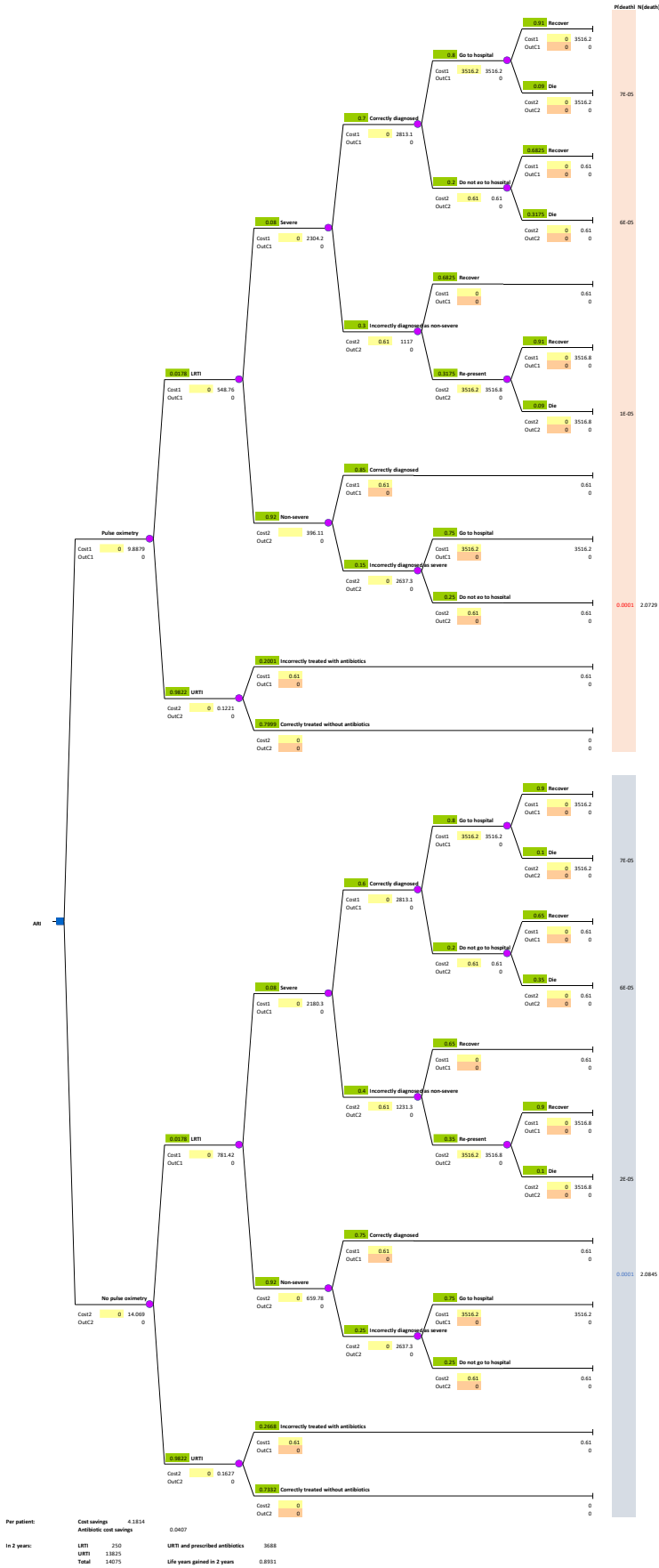
Assume lifespan of one oximeter is 2 years

Purchase price of one oximeter set plus neonatal	275
Maintenance cost of one oximeter set per year	55
District-wide training cost over 2 years	2649.504
Extra staff cost per PCU over two years	662.376
Total oximeter costs over 2 years	48485.536
Total oximeter costs over 1 year	24242.768





Per patient:	Cost savings	2,0311	0.0909	
	Antibiotic cost savings			
In 2 years:	LRTI	99	URTIs and prescribed antibiotics	4653
	URTIs	13642		
	Total	13741	Life years gained in 2 years	0.3262



SENSITIVITY ANALYSIS 4

Parameters as per SA3, but with no antibiotic cost savings

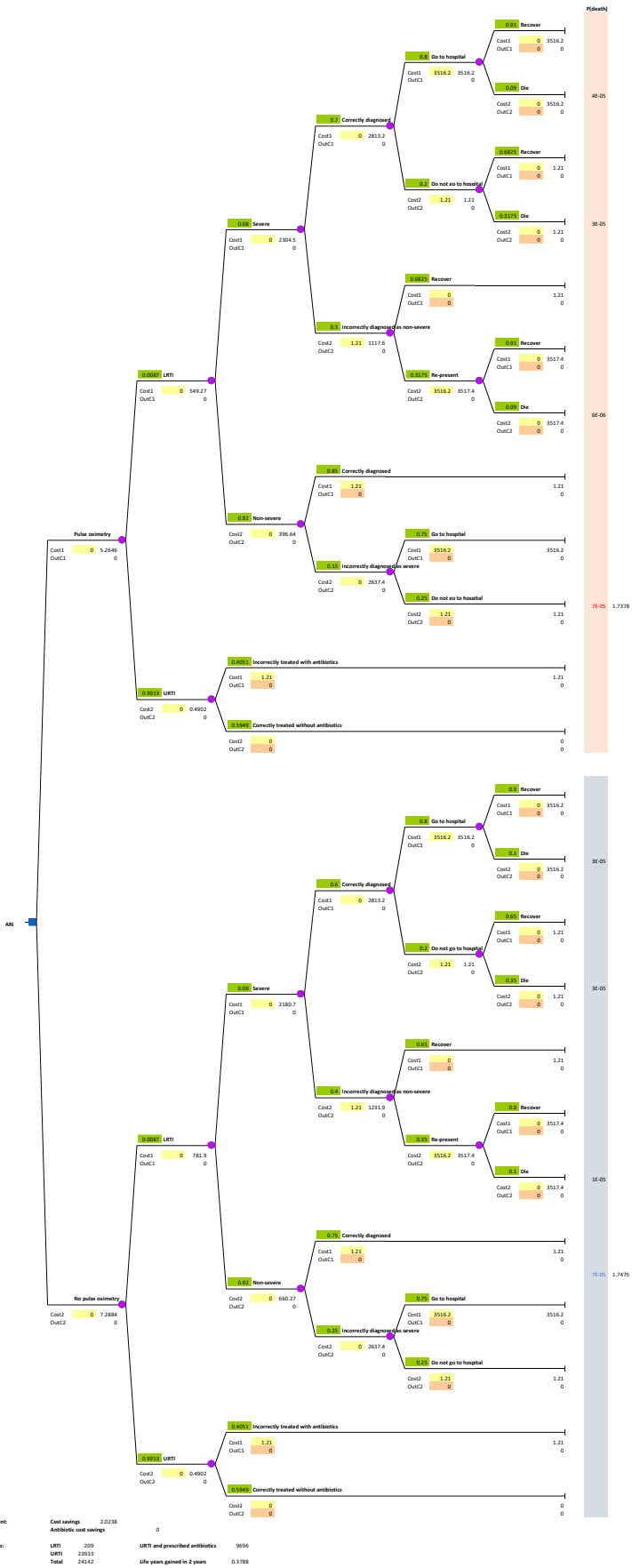
	Median age	No.	% H0 deaths in 2 years	H1 deaths in 2 years	Difference in deaths in 2 years	YLL for death at median age	Life years gained in 2 years	Life years gained in 1 year	Cost difference excl. direct costs in 2 years	Cost difference excl. direct costs in 1 year	Cost difference incl. direct costs in 1 year	Cost per life year gained incl. direct costs	Cost per life year gained excl. direct costs	Antibiotic cost savings in 1 year
Children <5	2	14075	28.174	2.084451	2.072876	0.011575	77.155993	0.893059	0.446529	-58290.12609	-29145.06305	-4902.295047	-10978.66151	0
Children 5-14	8	11741	23.502	0.820555	0.815999	0.004556	71.593286	0.326211	0.163106	-22788.99984	-11394.49992		-69859.68427	0
Adults	45	24142	48.325	1.747495	1.737791	0.009704	39.037158	0.378802	0.189401	-48859.49467	-24429.74734		-128984.1369	0
Total	13	49958	100	4.652501	4.626666	0.025835	57.427888	1.598072	0.799036	-129938.6206	-64969.3103	-40726.5423		0

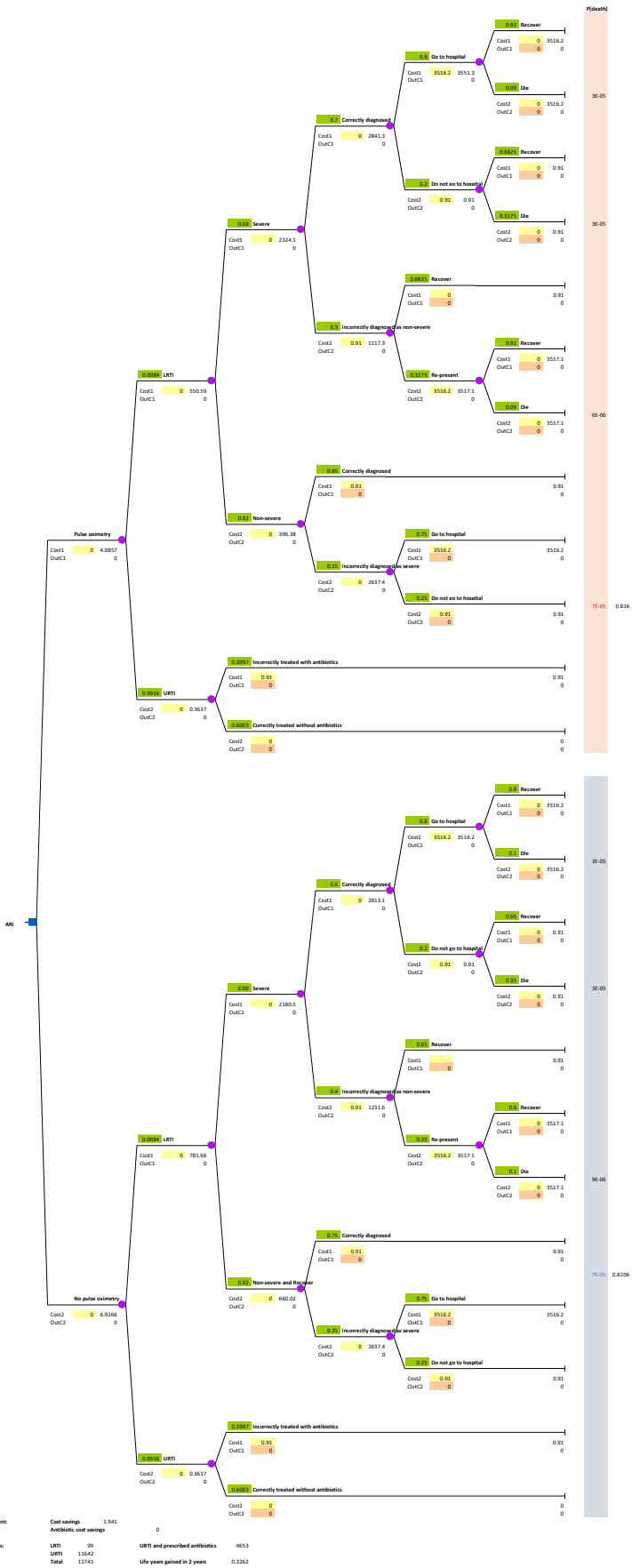
H0 - standard of care

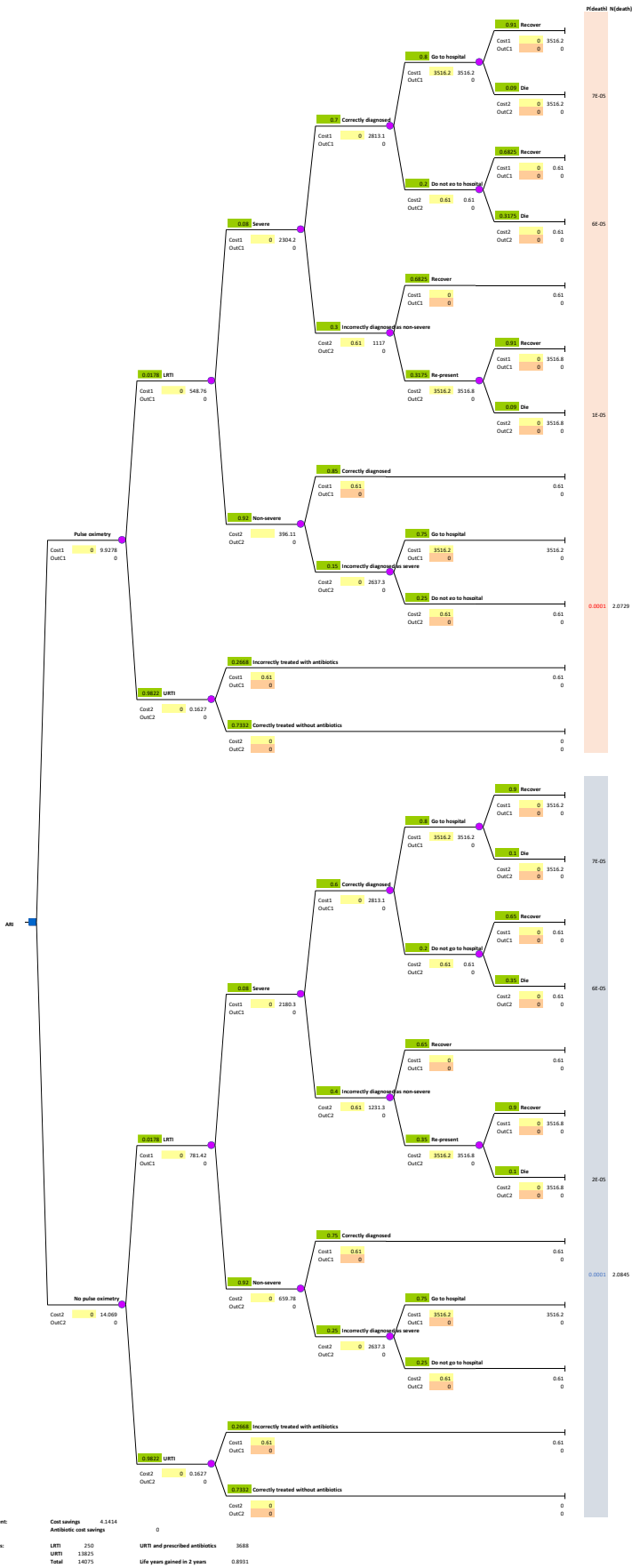
H1 - standard of care + pulse oximetry

Assume lifespan of one oximeter is 2 years

Purchase price of one oximeter set plus neonatal	275
Maintenance cost of one oximeter set per year	55
District-wide training cost over 2 years	2649.504
Extra staff cost per PCU over two years	662.376
Total oximeter costs over 2 years	48485.536
Total oximeter costs over 1 year	24242.768







Per patient:	Cost savings	4,3434	
	Antibiotic cost savings	0	
In 2 years:	LRTI	250	
	URT	13825	
	Total	14075	
	LRTI and prescribed antibiotics	3688	
	Life years gained in 2 years	0.0301	