



Risk Assessment iaw EN ISO 14971:2000 Annex D: Possible hazards with medical devices.

Ref.	Hazard.	Related part / Component posing risk.	Sev of Haz.	Like of Haz.	Risk.	Solution.	Document referenced.	Sev of Haz.	Like 0f Haz.	Risk.
D.2	Energy hazards and con	tributory factors								
D.2.1	Electricity	N/A	1	1	1			1	1	1
D.2.2	Heat	N/A	1	1	1			1	1	1
D.2.3	Mechanical force	Cot Lid	1	2	2	Recommendation not to use force when adjusting. If damaged, user to assess level of damage / sharp edges before re-use	F. User Instructions / label	1	2	2
D.2.4	Ionising radiation	N/A	1	1	1			1	1	1
D.2.5	Non ionising radiation	N/A	1	1	1			1	1	1
D.2.6	Moving parts	Cot Lid	1	2	2	Recommendation that care should be taken when opening and closing.	F. User Instructions / label	1	2	2
D.2.7	Unintended motion	N/A	1	1	1			1	1	1
D.2.8	Suspended masses	N/A	1	1	1			1	1	1
D.2.9	Patient support failure	N/A	1	1	1			1	1	1
D .2.10	Pressure (vessel rupture)	N/A	1	1	1			1	1	1
D.2.11	Acoustic pressure	N/A	1	1	1			1	1	1
D.2.12	Vibration	N/A	1	1	1			1	1	1
D.2.13	Magnetic fields (eg. MRI)	N/A	1	1	1			1	1	1
D.3	Biological hazards and	contributory factors								
D.3.1	Bio-contamination	Cot Lid	1	2	2	Construction / polished surfaces – easy to clean	E. Risk analysis report	1	2	2
D.3.2	Bio-incompatibility	Cot Lid	1	1	1	Perspex/acrylic sheet	Manufacturers data	1	1	1

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D.3.3	Incorrect formulation	N/A	1	1	1		Manufacturers data	1	1	1
	(chemical composition)									
D.3.4	Toxicity	N/A	1	1	1		Manufacturers data	1	1	1
D.3.5	Allergenicity	N/A	1	1	1		Manufacturers data	1	1	1
D.3.6	Mutagenicity	N/A	1	1	1		Manufacturers data	1	1	1
D.3.7	Oncogenicity	N/A	1	1	1		Manufacturers data	1	1	1
D.3.8	Carcinogenicity	N/A	1	1	1		Manufacturers data	1	1	1
D.3.9	Re and/or cross infection	Cot Lid	1	1	1		Manufacturers data	1	1	1
D .3.10	Pyrogenicity	N/A	1	1	1		Manufacturers data	1	1	1
D.3.11	Inability to maintain	Cot Lid	4	2	8	Construction/polished	F. User Instructions / label	1	2	2
	hygienic standards					surfaces – easy to clean.				
						Cleaning recommendation	E. Risk analysis report			
						in user manual / label				
D.3.12	Degradation	Cot Lid	1	1	1	Care instructions given in	F. User instructions	1	1	1
						the user manual				
D.4	Environmental hazards		ctors	·		_	,			,
D.4.1	Electromagnetic fields	N/A	1	1	1			1	1	1
D.4.2	Susceptibility to	N/A	1	1	1			1	1	1
D.T.2										1
D.T.2	electromagnetic									
	electromagnetic interference									
D.4.3	electromagnetic interference Emissions of	N/A	1	1	1			1	1	1
	electromagnetic interference Emissions of electromagnetic		1	1	1			1	1	1
D.4.3	electromagnetic interference Emissions of electromagnetic interference	N/A	1	1	1			1	1	1
	electromagnetic interference Emissions of electromagnetic interference Inadequate supply of		1	1	1			1	1	1
D.4.3	electromagnetic interference Emissions of electromagnetic interference Inadequate supply of power	N/A		1	1			1	1	1
D.4.3	electromagnetic interference Emissions of electromagnetic interference Inadequate supply of power Inadequate supply of	N/A		1 1 1	1 1 1			1 1 1	1 1	1 1 1
D.4.3 D.4.4 D.4.5	electromagnetic interference Emissions of electromagnetic interference Inadequate supply of power Inadequate supply of coolant	N/A N/A N/A	1	1 1 1	1 1			1 1	1 1	1 1 1
D.4.3	electromagnetic interference Emissions of electromagnetic interference Inadequate supply of power Inadequate supply of coolant Storage / operation	N/A	1	1 1 1 2	1 1 2	Environmental storage /	F. User instructions / label	1 1 1	1 1 2	1 1 2
D.4.3 D.4.4 D.4.5	electromagnetic interference Emissions of electromagnetic interference Inadequate supply of power Inadequate supply of coolant	N/A N/A N/A	1	1 1 2	1 1 2	Environmental storage / operating conditions in user manual / labelling	F. User instructions / label E. Risk analysis report	1 1 1	1 1 2	1 1 2

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D.4.7	Incompatibility with other devices with which the product is intended to be used	N/A	1	1	1			1	1	1			
D.4.8	Accidental mechanical damage	Cot Lid	1	1	1	Relatively robust material used. Mechanical as well as glued joints used. If damaged, user to assess level of damage / sharp edges before re-use	F. User instructions / label	1	1	1			
D .4.9	Contamination due to waste products and/or device disposal	Cot Lid	1	2	2	No special disposal required	F. User instructions / label E. Risk analysis report	1	2	2			
D.5													
D.5.1	Electricity	N/A	1	1	1			1	1	1			
D.5.2	Radiation	N/A	1	1	1			1	1	1			
D.5.3	Volume	N/A	1	1	1			1	1	1			
D.5.4	Pressure	N/A	1	1	1			1	1	1			
D.5.5	Supply of medical gases	N/A	1	1	1			1	1	1			
D.5.6	Supply of anaesthetic agents	N/A	1	1	1			1	1	1			
D.6	Hazards related to the u	se of the medical dev	ice and	d contr	ibutor	y factors							
D .6.1	Inadequate labelling	User manual / label	2	1	2	Product easy to use - label	F. Label	1	1	1			
D.6.2	Inadequate operating instructions	User manual	2	1	2	Product easy to use – User manual	F. User Instructions	1	1	1			
D.6.3	Inadequate specification of accessories		1	1	1			1	1	1			
D .6.4	Inadequate specification of pre-use checks	User manual / label	2	2	4	Product easy to use User manual / inserts	F. User instructions / label	2	1	2			
D.6.5	Over-complicated operating instructions	User manual	2	1	2	Product easy to use User manual / label	F. User instructions / label	1	1	1			

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D .6.6	Inadequate specification of service and maintenance	N/A	1	1	1	No service required except external cleaning	F. User instructions / label	1	1	1
D.6.7	Use by unskilled / untrained personnel	Cot Lid	2	1	2	Product easy to use User manual / label	F. User instructions / label E. Risk analysis report	2	1	2
D.6.8	Reasonable foreseeable misuse	Cot Lid	1	1	1	Product easy to use User manual / label	F. User instructions / label E. Risk analysis report	1	1	1
D .6.9	Insufficient warning of side effects	N/A	1	1	1			1	1	1
D .6.10	Inadequate warnings of hazards likely with reuse of single use devices	N/A	1	1	1			1	1	1
	Incorrect measurement and other metrological aspects	N/A	1	1	1			1	1	1
D.6.12	Misrepresentation of results	N/A	1	1	1			1	1	1
D.6.13	Incompatibility with consumables / accessories / other devices	Cot Lid	1	1	1	Suitably sized cut-outs / holes used.		1	1	1
D .6.14	Sharp edges or points	Cot Lid	2	2	4	If damaged, user to assess level of damage / sharp edges before re-use	F. User instructions / label E. Risk analysis report	2	1	2
D. 7	Inappropriate, inadequa	ite or overcomplicat	ed usei	interf	ace (n	nan/machine communicatio	on)			
D .7.1	Mistakes & judgement errors	N/A	1	1	1			1	1	1
D.7.2	Lapses and cognitive recall errors	N/A	1	1	1			1	1	1
D.7.3	Slips & blunders (mental or physical)	N/A	1	1	1			1	1	1

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D.7.4	Violation or abbreviation of instructions, procedures etc	N/A	1	1	1		1	1	1
D.7.5	Complex or confusing control system	N/A	1	1	1		1	1	1
D .7.6	Ambiguous or unclear device state	N/A	1	1	1		1	1	1
D.7.7	Ambiguous or unclear presentation of settings, measurement, or other information	N/A	1	1	1		1	1	1
D.7.8	Misrepresentation of results	N/A	1	1	1		1	1	1
D .7.9	Insufficient visibility, audibility or tactility	N/A	1	1	1		1	1	1
D .7.10	Poor mapping of controls to action or of displayed information to actual state	N/A	1	1	1		1	1	1
D .7.11	Controversial modes or mappings as compared to existing equipment	N/A	1	1	1		1	1	1
D.8	Hazards arising from fu	nction failure, main	tenance	e and a	geing a	and contributory factors	l		
D.8.1	Erroneous data transfer	N/A	1	1	1		1	1	1
D.8.2	Lack of, or inadequate specification for maintenance including post maintenance functional tests	N/A	1	1	1		1	1	1
D.8.4	Inadequate maintenance	N/A	1	1	1		1	1	1

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D.8.5	Lack of adequate determination of end of device life	Cot Lid	1	1	1	User decision based on clarity of plastic & tolerable damage to Cot lid	E. Risk analysis report	1	1	1
D.8.6	Loss of electrical integrity	N/A	1	1	1		E. Risk analysis report	1	1	1
D.8.7	Loss of mechanical integrity	Cot Lid	1	1	1	User decision based on clarity of plastic & tolerable damage to Cot lid	E. Risk analysis report	1	1	1
D.8.8	Inadequate packaging (contamination and / or deterioration of the device)	Cot Lid	2	2	4	Often exact standard design – product hand packed for despatch by courier	E. Risk analysis report M. Packaging	1	1	1
D .8.9	Re-use and/or improper re-use	Cot Lid	1	1	1	User decision on suitability for next use based on clarity of plastic & tolerable damage	E. Risk analysis report	1	1	
D.8.10	Deterioration in function (gradual occlusion of fluid / gas path or change in resistance to flow, electrical conductivity) as a result of repeated use	Cot Lid	1	1	1	User decision based on clarity of plastic & tolerable damage to Cot lid	E. Risk analysis report	1	1	