

GLAUKOS[®]

KXL[®] Imanuwali Ka-oopharetha Wohlelo

Inombolo Yemodeli: 110-01019





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KXL System

KXL® Imanuwali Ka-opharetha Wohlelo

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Izinto Eziqujijwe, Izimpawu Zohwebo, Amalungelo Okukopisha

I-KXL® System kungenzeka ikhawwa yisicelo esisodwa noma ngaphezulu sezinto ezisunguliwe ezikhishwe noma ezisalindile e-United States kanye/noma emhlabeni kabanzi.

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Mayelana Nemanuwali

Le manuwali ihlinzekwa nangefomethi ye-elektronikhi futhi iyatholakala kuwebhusayithi ye-Glaukos ku-www.glaukos.com. Kudingeka i-Adobe Acrobat. Ukuze uthole ikhophi yephepha yale manuwali ngaphandle kwezindleko ezengeziwe, zingakapheli izinsuku eziyi-7, xhumana ne-Glaukos Customer Service kule mininingwane: +1 (844) 528-3376 noma orders@glaukos.com.

Ulwazi olukule manuwali lungase lushintshe ngaphandle kwesaziso. Ukuze uthole imanuwali yakamuva, njalo bhaka iwebhusayithi ye-Glaukos. Izithombe ze-KXL System nezithombe-skrini zika-opharetha ezifakwe kule manuwali zenzelwe ukufanekisa kuphela; umkhqizo wangempela ungase wehluke.

Le manuwali akufanele ishicilelwe, ikopishwe, noma idluliswe ngama-elektronikhi ngaphandle kwemvume ebhaliwe etholwe kusenesikhathi ye-Glaukos, iNkampani ye-Glaukos.

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1. ISANDULELA

1.1. Inhloso Yokusetshenziswa Kwemanuwali

Le manuwali yenzelwe ukusiza o-opharetha be-KXL System. Yonke imiyalelo yoku-opharetha, imifanekiso yomkhiqizo, izithombe zesikrini, imiyalezo yokuxazulula izinkinga/amaphutha, nalo lonke olunye ulwazi olufanele luqukethwe kule manuwali. Kuwumsebenzi ka-opharetha ukuqinisekisa ukuthi yonke imiyalelo yokuphepha ekule manuwali ilandelwa ngokucophelela.

1.2. Inhloso Yokusetshenziswa/Izimpawu Zokusetshenziswa

I-KXL System inikeza umthamo ozinzile, olinganiselwe wokukhanya kwe-UVA endaweni efuna ukwelashwa ngenhloso yokukhanyisa inhlamvu yeso (i-cornea) ngesikhathi sezinqubo zokuqiniswa kwenhlamvu yeso esiqinisa i-cornea eyenziwe buthaka isifo noma ukuhlinzwa kokulungisa ikhono lokubona.

1.3. Abasebenzisi Abahlosiwe

Abasebenzisi abahlosiwe ochwepheshe bezokwelapha abagunyaziwe.



ISEXWAYISO: Abasebenzi abagunyaziwe nabanolwazi kuphela abazosebenzisa i-KXL System.

1.4. Indawo Yokusetshenziswa Ehlosiwe

I-KXL System ihloselwe ukusetshenziswa endaweni yobuchwepheshe yokunakekelwa kwezempilo. Ingasetshenziswa ezigulini ezilaliswe esibhedlela nezingalalisiwe esibhedlela kubandakanye emahhovisi kadokotela, emitholampilo, nasezibhedlela.

1.5. Iziguli Ezihlosiwe

Iziguli ezidinga izinqubo zokuxhumanisa izicubu zamehlo ukuze kuqiniseke inhlamvu yeso (cornea) eyenziwe buthaka yisifo noma ukuhlinzwa kokulungisa ikhono lokubona.

1.6. Imibandela

Ukusetshenziswa kwe-KXL System kuyaxwayisa ngaphansi kwezimo ezilandelayo:

- Inhlamvu yeso inongqimba, kanye ne-epithelium, engaphansi kuka-375 microns
- Izifo zokuncibilika kwe-cornea
- Iziguli ze-aphakic
- Iziguli ze-pseudophakic ngaphandle kwe-UV evimba ilensi yokufakelwa
- Abesifazane abakhulelwe nabancelisa ibele
- Izingane

1.7. Izexwayiso

Odokotela kufanele bahlaziye izinzuzo ezingaba khona ezigulini ezinezifo ezilandelayo:

- I-herpes simplex
- I-herpes zoster keratitis
- Ukugudleka okuphindelelayo kwe-cornea
- I-corneal dystrophy
- Izifo zokululama kwe-epithelium

1.8. Imithelela Engemihle

Imithelela engemihle elindelwe ayihlosiwe, kodwa izimpawu ezilindelwe ezingaba khona ngaphansi kokwelashwa ngokuphuza umuthi noma ngokusebenzisa idivayisi yezokwelapha. Ingenzeka ngemithamo evamile, enconywayo noma ngesikhathi esivamile sokusebenzisa idivayisi yezokwelapha. Imithelela engemihle ayihlobene nenjongo ehlosiwe yomuthi noma yedivayisi yezokwelapha. Imithelela engemihle ngokuvamile ibonwa ngudokotela kusengaphambilini futhi isiguli kufanele sitshelwe ukuthi siqaphele imithelela engaba khona ngenxa yokwelashwa. Imithelela engemihle ngemva kokuhlinzwa iyalinganisela futhi iyazidambela ngokwayo ngokuhamba kwesikhathi. Le mithelela ingahlanganisa:

- Ukungaboni kahle
- I-conjunctival hyperemia
- Ukuzwa sengathi kunokuthile emzimbeni
- Ukwesaba ukukhanya
- Umuzwa wokubaba/ukushiselwa

Kunemithelela engemihle engaba khona engavela ngenxa yokukhishwa kwemisebe ye-UVA ku-KXL System. Le mithelela ibandakanya, kodwa ayigcini kulena:

- Ukungaboni kahle
- Ukubhoboka kwe-cornea (kuyivelakancane kakhulu)
- I-Herpes Simplex (HSV) Keratitis Reactivation
- I-keratitis
- I-photokeratitis

I-KXL System isetshenziselwa izinqubo ezihlukahlukene zokuqinisa inhlamvu yeso futhi inqubo ngayinye inezingcuphe ezihambisana nayo nemithelela engemihle. Izehlakalo ezimbi ezingaba khona nemithelela engemihle engavela ngenqubo yokuqiniswa kwenhlamvu yeso zingahlukahluka kusukela ezimpawini ezincane (isib., ubuhlungwana obuthile, ukuzwa sengathi kunokuthile emzimbeni, ukuzwela ekukhanyeni, ukungaboni kahle) kuya emitheleleni engemihle emibi kakhulu (isib., i-corneal edema, ukufiphala kwe-cornea) kuye ngokuthi inqubo yokulungiswa kweso iphazamise kangakanani. Imithelela engemihle engaba khona ngenqubo yokuqiniswa kwenhlamvu yeso ingabandakanya, kodwa ingagcini kulena:

- Ukungaboni kahle
- Ukushintsha kobukhali bamehlo
- I-conjunctival hyperemia
- I-corneal edema
- Ukulimala kwe-epithelium yeso – Okuphikelelayo/okungelapheki – Ukubambezeleka kokuphola kwe-epithelium
- Ama-corneal infiltrate
- Ukukhanya kwe-cornea (Ukuva luvindi/lzibazi)
- Isilonda ku-cornea/ i-ulcerative keratitis
- Ukuzwa sengathi kunokuthile emzimbeni
- I-Herpes Simplex (HSV) Keratitis Reactivation
- Ukuvuvukala
- I-keratitis
- Ukutheleleka kwamagciwane
- Ubuhlungu obuncane kuya kobumaphakathi ngemva kokuhlinzwa

1.9. Ukubikwa Kwehlehlakalo Ezimbi

Izehlakalo ezimbi kanye/noma izehlakalo ezibucayi kufanele zibikelwe i-Glaukos Corporation ku-MedicalSafety@glaukos.com.

1.10. Izincazelo Zokuphepha

Kungase kusetshenziswe izitatimende zamagama asemqoka kuyo yonke le manuwali ukuze kugcizelelwe ulwazi olubalulekile lokuphepha nolubucayi. Lezi zitatimende zichaza ngezansi.

INGOZI: Isimo esingaba yingozi kakhulu, okungathi uma singagwenywa, sidale ukufa noma ukulimala okubi.

ISEXWAYISO: Isimo esingaba yingozi kakhulu, okungathi uma singagwenywa, sidale ukufa noma ukulimala okubi.

ISEXWAYISO: Isimo esigaba yingozi kakhulu, okunathi uma singagwenywa, sidale ukulimala okuncane noma okumaphakathi noma umonakalo wamathuluzi noma enye impahla.

OKUBALULEKILE: Inothi eliphethe ulwazi olubalulekile olusiza ekuqondeni noma ekusebenziseni imiyalelo.

QAPHELA: Inothi eliphethe ulwazi oluthe xaxa olusiza ekuqondeni noma ekusebenziseni imiyalelo.

1.11. Izexwayiso Zokuphepha Zikagesi

Lo mshini udinga izinyathelo ezikhethekile zokuqapha mayelana nokuvumelana kwawo kwe-electromagnetic (EMC). Ukufakwa nokusetshenziswa kufanele kwenziwe ngokuvumelana nolwazi lwe-EMC oluhinzekwe kule manuwali.

Imishini yezokuxhumana ye-RF ephathwayo neyeselula ingaphazamisa imishini kagesi enjenge-KXL System yase-Glaucos.

Ukuze uthole izigaba zemishini sicela ubhele Isigaba 5: Izigaba Zemishini.

Sebenzisa kuphela imikhiqizo ye-Glaucos noma imikhiqizo egunyazwe yi-Glaucos kanye ne-KXL System yakho. I-Glaucos ngeke ithwale icala ngomonakalo noma ukungasebenzi kahle kwesistimu, okudalwa ukusetshenziswa kwezinto ezingagunyaziwe.

 Izexwayiso Zokuphepha Zikagesi	
1.	Noma ikuphi ukulungiswa noma ukuseviswa kufanele kwenziwe yizisebenzi eziqeqeshiwe zase-Glaucos kuphela. UNGAWUSHINTSHI lo mshini ngaphandle kwesigunyazo somenzi wawo.
2.	Ukuze kugwenywe ingcuphe yokushiswa ugesi lo mshini kufanele uxhunwe kuphela ngezintambo zikagesi ezine-earth eyisivikelo. Ukuze kuhlukaniswe ukuxhunywa kwesistimu kugesi, bamba ipulaki yentambo kagesi futhi uyikhiphe odongeni ukuze uzihlukanise. Isistimu yenzelwe ukuqhubeka isebenza isebenzisa isixhumi sangaphandle.
3.	Lo mshini usebenza ngogesi oyingozi ongashaqisa, ushise, noma udale ukufa. Ukuze unciphise amathuba okushaqiswa ugesi, kanye nokuchayeka ku-UVA ngokungenhloso ungasusi noma imaphi amaphaneli aboshiwe. Qiniseka ukuthi yonke isevisi yesistimu, edlulela ngale kwalokho okuchazwe kule manuwali, yenziwa yizisebenzi ezigunyaziwe zase-Glaucos kuphela.



Izexwayiso Zokuphepha Zikagesi

4.	Cime ugesi wesistimu futhi ukhiphe wonke amapulaki odongeni ngaphambi kokusebenza noma ukuhlanza (ukukhuculula) umshini. Ungalokothi udonse izintambo ukuze ukhiphe intambo kagesi lapho ixhunywe khona. Bamba ipulaki yentambo kagesi futhi uyikhiphe odongeni ukuze uzihlukanise. Umshini kufanele ubekwe ngendlela ezokwenza kungabi nzima ukukhipha intambo kagesi engoxini yayo.
5.	Ungasebenzisi umshini ngentambo kagesi elimele.
6.	Beka intambo kagesi ngendlela ezokwenza ukuthi ingakhubi muntu, inyathelwe, igogane, isongeke, igobeke, impintsheke, noma idonswe odongeni ngephutha.
7.	Ungawusebenzisi umshini eduze kwamanzi futhi uqaphele ukuthi ungatheli amanzi kunoma iyiphi ingxenye yawo.
8.	Ungayisebenzisi i-KXL System phambi kwezingxube ezokheleka ngomlilo noma imithi ebulala imizwa.
9.	Ungawubuki ngokuthe ngqo umsebe wokukhanya kwe-UV. Ungawubhekisi umsebe kothile ngaphandle uma ukwenza ngenjongo yokwelapha.
10.	Ukuziba imithetho yendawo yokusetshenziswa kwamadivayisi e-elektronikhi nemisebe kungadala ukungasebenzi kahle ngenxa yokuphazamiseka kwe-electromagnet.
11.	Irimothi inamabhethri ashintshwayo. Khipha amabhethri uma isistimu ingeke isetshenziswe isikhathi esijana.
12.	Ukusetshenziswa izisetshenziswa ezingagunyaziwe kuholela ekungqubuzaneni nomthetho kwedivayisi.
13.	Isistimu ingaphazanyiswa omunye umshini ngisho noma lowo mshini uthobela izimfuneko ze-CISPR Emissions. Bheka Isigaba 5: Izigaba Zemishini.
14.	Ukusebenzisa lo mshini useduze noma uphezu komunye umshini kufanele kugwenywe ngoba kungadala ukungasebenzi kahle. Uma kudingeka ukuba usetshenziswe kanjalo, lo mshini neminye imishini kufanele iqashelwe ukuze kuqinisekwe ukuthi isebenza ngendlela efanele.
15.	Imishini yezokuxhumana ye-RF ephathekayo (kubandakanye nezinto eziseceleni njengezintambo zama-antenna nama-antenna angaphandle) kufanele zisetshenziswe ziqhele okungenani ngo-30cm (amayintshi ayi-12) kunoma iyiphi ingxenye ye-KXL System (110-01019), kubandakanye nezintambo ezishiwo umenzi. Kungenjalo, lo mshini ungagcina uwohloka.
16.	Isistimu akufanele isevise noma inakekelwe ngesikhathi isetshenziswa esigulini.
17.	MR Unsafe – Igcine ikude nemishini ye-magnetic resonance imaging.
18.	Ungasebenzisi idivayisi elimele noma engasebenzi ngendlela efanele. Ukusebenzisa amadivayisi anjalo kungalimaza umsebenzisi kanye/noma isiguli.

1.12. Izexwayiso Zokuphepha Ekukhishweni Kwemisebe

 Izexwayiso Zokuphepha Ekukhishweni Kwemisebe	
1.	Sebenzisa amathuluzi e-laser eqophelo elifanele ukuze kungasakazeki imisebe ye-UV ezindaweni ezibushalelezi ezisansimbi.
2.	I-UV ekhishwa yilo mkhiqizo. Gwema ukuchayeka kwamehlo nesikhumba emikhiqizweni engavikelekile. Ungawubhekisi umsebe kothile ngaphandle uma ukwenza ngenjongo yokwelapha.
3.	I-UV ekhishwa yilesi sibani. Ingadala ukulimala kwesikhumba noma kwamehlo. Gwema ukuchayeka kwamehlo nesikhumba esibanini esingavikelekile.

 Izexwayiso Zokuphepha Ekukhishweni Kwemisebe	
1.	I-UV ekhishwa yilesi sibani. Ukushoshozela kwesikhumba noma kwamehlo. Nciphisa ukuchayeka.
2.	I-UV ekhishwa yilesi sibani. Kungaba khona ukushoshozela kwesikhumba noma kwamehlo uma umuntu echayeke ngaphezu kwemizuzu eyi-15 ngosuku. Sebenzisa izivikelo ezifanele.

1.13. Ezinye Izinto Ezithinta Ukuphepha Okufanele Zicatshangelwe

Noma ikuphi ukushintshwa kwesibani sokukhanya sangaphandle kusistimu ngama-elementi ezibani kunqatshelwe.

Amathuluzi epulasitiki njengama-speculum noma izembozo zamehlo zingalimala uma zithola ukukhanya kwe-UV, okungaholela ekuwohlokeni komkhiqizo. Ngakho-ke, yizisetshenziswa ze-Glaucos ezinconywayo kuphela, noma amathuluzi okuhlinza e-stainless-steel okufanele zisetshenziswe.

1.14. Isaziso Se-FCC Sokuthobela Umthetho

Le mishini ihloliwe futhi yatholakala ithobela imikhawulo yeSigaba B sedivayisi yedijithali, ngokuvumelana neNgxenye 15 yeMithetho ye-FCC. Le mikhawulo yenzelwe ukuhlinzeka ngesivikelo esifanele sokuphazamiseka okuyingozi endaweni okuhlala kuyo abantu. Lo mshini uphehla, usebenzise, futhi ungakhipha amandla emisebe yomsakazo, futhi uma ungafakwanga futhi wasetshenziswa ngokuvumelana nemanuwali wemiyalelo, ungadala ukuphazamiseka okuyingozi kwezokuxhumana komsakazo. Kodwa-ke, asikho isiqinisekiso sokuthi ukuphazamiseka ngeke kwenzeke uma ufakwe ngendlela ethile.

Uma lo mshini udala ukuphazamiseka okuyingozi kwamaza omsakazo noma kamabonakude, okungatholakala ngokuvula futhi ucime umshini, umsebenzisi ukhuthazwa ukuba azame ukulungisa lokho kuphazamiseka ngendlela eyodwa noma ngaphezulu kwezilandelayo:

- Lungisa noma ushintshe indawo ye-antenna yokuxhuma.
- Qhelelanisa umshini ne-receiver kakhudlwana.
- Xhuma umshini engosini kagesi kusekhetshi ehlukile kuleyo okuxhunye kuyo i-receiver.

- Xhumana nabosizo lwendawo babaphakeli be-Glaukos.
- Izintambo nezixhumi ezivikelwe kahle futhi zaboshelwa kufanele zisetshenziswe ukuhlangabezana nemikhawulo yokukhishwa kokungcola ye-FCC. Izintambo nezixhumi ezifanele ziyatholakala e-Glaukos. I-Glaukos ayinacala nganoma ikuphi ukuphazamiseka komsakazi noma kukamabonakude ngenxa yezinguquko ezingagunyaziwe noma ukushintshwa kwalo mshini. Izinguquko noma ukulungiswa okungagunyaziwe kungachitha igunya lomsebenzisi lokusebenzisa umshini.

2. ISINGENISO

2.1. Amazwibela Esistimu

I-KXL System yidivayisi ye-elektroniki yezokwelapha ekhipha ukukhanya kwe-ultraviolet (okune-wavelength engu-365 nm) ngephethini yomsebe obanzi, oyindilinga ku-cornea ngemva kokuthela uketshezi lwe-riboflavin. Ukushisa i-riboflavin ngemisebe kudala i-singlet oxygen, eyakha amabhondi phakathi kwamamolekhuli ku-collagen yenhlamvu yeso, okuqinisa inhlamvu yeso ngokuvuselela izicubu ezixhumayo. Isikhathi sokufakwa kwe-UV nokushiswa ngemisebe (okuwukuthi, i-fluence) ku-cornea kulawulwa uhlelo lwekhompuyutha exhunyiwe.

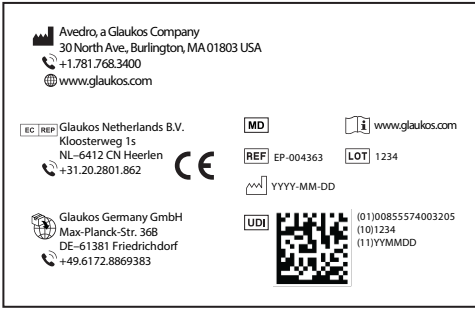
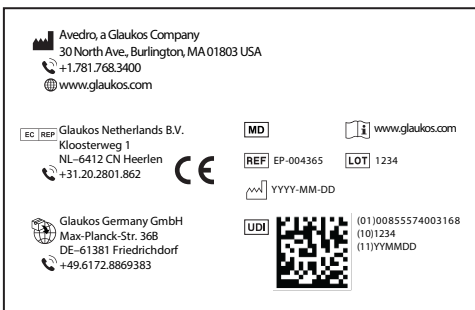
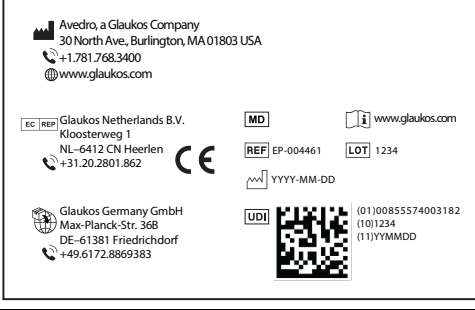
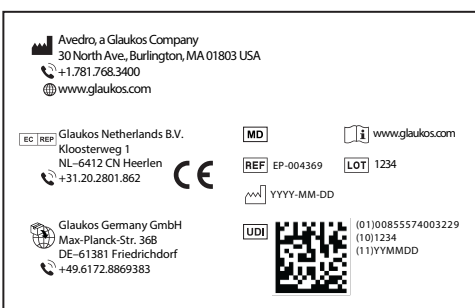
I-KXL yisistimu ethuthakayo enengalo enyakazayo evumela ukunyakaza kwesistimu ukuze kuqondiswe Umsebe we-UV enhlamvini yeso yesiguli.

Ikhanda le-optics linomshini wokushisa we-UVA kanye nekhamera. Le sistimu ikhipha imisebe ye-UVA nge-wavelength engu-365 nm (+/- 8 nm) ngezinga lokushisa okuguquguqukayo okuphakathi kuka-3 mW/cm² kuya ku-45 mW/cm².

Kusetshenziswa imbotshana ukukhipha imisebe eyindilinga ngezinga elizinzile endaweni eyelashwayo ngobubanzi obungu-9 mm. Kusetshenziswa ama-laser aqondisayo ukusiza umsebenzisi agxilise umsebe ku-cornea yesiguli. Ukuqondiswa ngokucophelela komsebe we-UV kulawulwa ngerimothi engaxhunyiwe ngentambo. Isikrini somsebenzisi sivumela ukuthi umsebenzisi akwazi ukukhetha imisebe yokwelapha kanye namandla ayo aphelele.

I-KXL System isetshenziswa kanye noketshezi lwe-Riboflavin kanye nekhadi lokwelapha le-RFID. Ikhadi ngalinye lokwelapha ligcina isibalo sokwelashwa kanye nezinga lemikhawulo yokwelapha ekhethwayo ephathelene nalokho kwelapha ngokuqondile. Sicela ubheke ithebula ekhasini elilandelayo elichaza imininingwane yezingxube ze-riboflavin, ukwelashwa kanye namakhadi okwelashwa ahambisana nazo.

QAPHELA: Sicela ubheke Imiyalelo Yokusebenzisa (i-IFU) i-riboflavin ukuze uthole imininingwane ngalolu ketshezi.

I-Riboflavin		
Umkhqiqizo Woketshezi/ Wokwela-shwa	Amakhadi Okwelashwa	
VibeX® Xtra/ Lasik Xtra® Ukwelashwa 10x ikhadi REF: EP-004363 1x ikhadi REF: 520-004393		
VibeX® Rapid/ Ukwelashwa Okusheshisiwe Kwe-Epi-off 10x ikhadi REF: EP-004365 1x ikhadi REF: 520-004391		
VibeX® Rapid/ Ukwelashwa Okuvamile Kwe-Epi-off 10x ikhadi REF: EP-004461 1x ikhadi REF: 520-004468		
Ikhithi ye-Trans-Epithelial/ Ukwelashwa kwe-Trans-Epithelial 10x ikhadi REF: EP-004369 1x ikhadi REF: 520-004396		

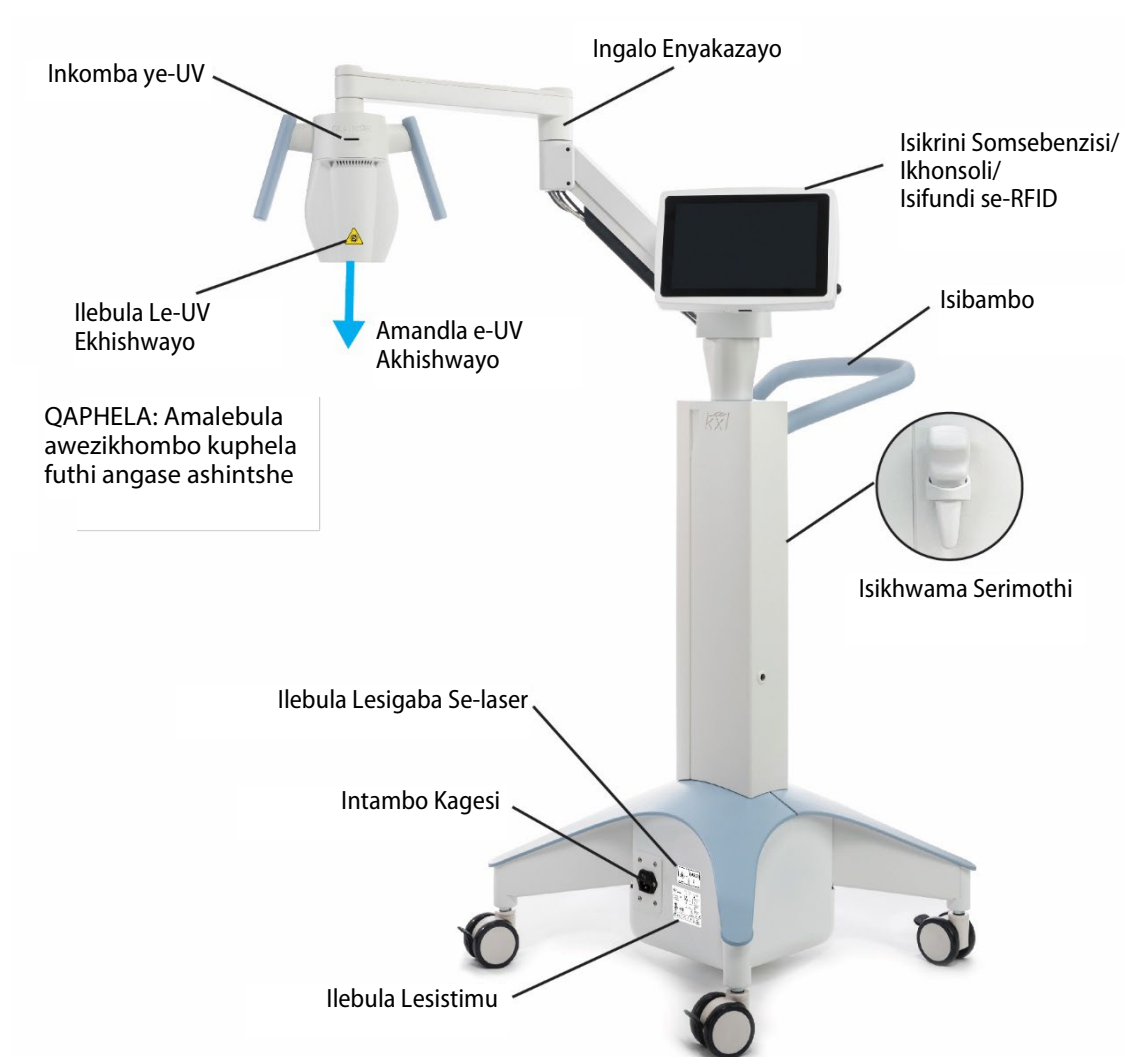
2.2. Izingxenywe Eziyinhloko

Izingxenywe eziyinhloko ze-KXL System (Inombolo Yemodeli: 110-01019) zibandakanya okulandelayo:

- Ikhanda le-optics elinomthombo we-UV kanye nekhamera
- Ikhonsoli ye-KXL kanye nesikrini somsebenzisi
- Irimothi engaxhunyiwe ngentambo (enamabhethri ashintshwayo)
- Intambo kagesi we-AC yasesibhedlela (Ekhiyekayo/ekhiphekayo)



Isithombe 1. Amazwibela e-KXL System (Inombolo Yemodeli: 110-01019)



Isithombe 2. Izingxenye Zesistimu Nendawo Yamalebula Esistimu



Isithombe 3. Irimothi Engaxhunyiwe Ngentambo

QAPHELA: Uma usebenzisa irimothi evamile, bheka Isithasiselo 1 ukuthola ulwazi lokuyisebenzisa nokuxazulula izinkinga.





REF 110-01019 V~ 100-240

SN KXL-123456 A 2-1

YYYY-MM-DD Hz 50/60

kg 48

UDI  (01) 00855574003045
(21) KXL-123456
(11) YYMMDD

MD  
www.glaukos.com
FCC: SX90RFID1

Avedro, a Glaukos Company
30 North Ave.
Burlington, MA 01803 US
Tel: +1.781.768.3400

Emergo Europe B.V.
Westervoortsedijk 60
6827 AT, Arnhem
The Netherlands
Tel: +31.70.345.8570

80%
20%

15°C
30°C

810 mbar
1050 mbar

IP20

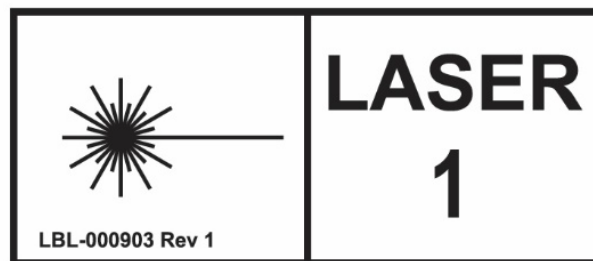
    

LBL-000904 Rev 3

Isithombe 4. Ilebula Lesistimu



Isithombe 5. Ilebula le-UV



Isithombe 6. Ilebula Lesigaba Se-laser

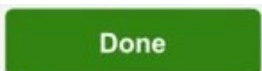
3. UKUSEBENZA KWESISTIMU

3.1. Ukusebenzisa I-touchpad/Ikhibhodi

Ithebula elingezansi libonisa futhi lichaza izinkinobho ezibalulekile ze-touchpad kanye nezithonjana ezitholakala uma usebenzisa i-KXL System. Isigaba 2.2: Izingxenye Eziyinhloko zibonisa futhi zichaza izingxenye eziyinhloko ze-KXL System.

Isithonjana	Incazelo/Umsebenzi
 Export service log	Thumela amalogi okusevisa.
 Reboot	Qala kabusha isistimu uma ukuhlola kokuqalisa isistimu kungaphumelelanga.
 Power off	Kuvala amandla kagesi aya kukhonsoli.
 Options	Bonisa amasethingi esistimu. Ongakukhetha kubandakanya amasethingi esistimu, amasethingi esevisi, imodi yokubonisa.
 System settings	Kuboniswa imenyu yamasethingi edivayisi. Amasethingi ahlanganisa ivolumu yomsindo, ukulungisa ukukhanya kwekhamera, ulimi lwesistimu, ilogi yesevisi ethunyelwayo, amandla eziboya zokuqondisa.
 Service settings	Ikhono lokushintsha imikhawulo evamile. Amasethingi abandakanya ukuhlola isistimu, amasethingi omenzi (inombolo yesiriyali yekhanda, inombolo yesiriyali yesistimu), ukuphehlwa kwe-UV, usuku nesikhathi sokushintsha. QAPHELA: Kutholakala kubasebenzi besevisi kuphela.
 Demo mode	Ivula imodi yokubonisa isistimu. QAPHELA: I-UV ekhishwayo ayifinyeleleki ngesikhathi semodi yokubonisa.
 Start >	Iqala uhlelo oselucushiwe noma olulungisiwe lokwelapha isiguli.

Isithonjana	Incazelo/Umsebenzi
	Ikhansela konke okufakwe esikrinini futhi ibuyela esikrinini esandulele. Ikhansela iseshini yokwelapha isiguli.
	Iqondisa isistimu ukuba yamukele imikhawulo yamanje yokwelashwa esikrinini sokuqinisekisa ukwelashwa bese iqhubekela esinyathelweni esilandelayo.
	Yenyusa isibalo sendawo yamanje.
	Inciphisa isibalo sendawo yamanje.
	Ivumela umsebenzisi ukuba alondoloze imikhawulo yokwelashwa eshintshiwe endaweni yokucupha ukwelapha kusengaphambilini futhi ikhuthaza umsebenzisi ukuba aqondile isikrini esesicushiwe sokwelapha.
	Isula isilinganiso esesicushiwe ifake izilinganiso zokwelapha ezishintshiwe.
	Ivala isikrini samanje ngaphandle kokulondoloza izinguqoko.
	Ilondoloza izilinganiso zokwelashwa ezishintshiwe emikhawulweni esicushiwe kusistimu.
	Ngesikhathi sokuvumelanisa nerimothi, ivumela umsebenzisi ukuba aphinde azame ukuvumelanisa irimothi.
	Iqalisa isibalisikhathi sokufaka i-riboflavin.
	Uma ukuvumelanisa irimothi kungaphumeleli, ivumela ukwelashwa ukuba kuqhubeke ngaphandle kwerimothi.
	Uma iziboya seziqondile, le nkinobho iqala ukwelapha kwe-UV.

Isithonjana	Incazelo/Umsebenzi
	Imisa ukwelapha kwe-UV. QAPHELA: Amakhefu amabili emizuzu emibili lilinye (imizuzu emine isiphelele) ayatholakala esigulini ngasinye.
	Iqhubekisa ukwelashwa kwe-UV ngesikhathi sekhefu.
	Ikhipha umbiko wokufingqa ukwelashwa.
	Iqedela ukwelashwa ngaphandle kokukhipha umbiko wokufingqa ukwelashwa. Ivumela umsebenzisi ukuba aphume ezikrinini zamasethingi.
	Ivumela umsebenzisi ukuba abuyele esikrinini sokufingqa ukwelashwa ukuze akhiphe umbiko wokufingqa ukwelashwa.
	Ivumela umsebenzisi ukuba aqedele ukwelashwa ngaphandle kokukhipha umbiko wokufingqa ukwelashwa.
	Ivumela umsebenzisi ukuba akhiphe umbiko wokufingqa ukwelashwa awufake ku-USB ehlinzekwe ngumsebenzisi.

3.2. Amandla (Umthamo) E-UV

Amandla Emisebe ye-UV (Umthamo) umkhiqizo Wemisebe ye-UV kanye Nesikhathi Sokukhishwa Kwemisebe ye-UV. Umthamo Namandla e-UV kuyashintsheka, futhi Isikhathi Sokukhishwa Kwemisebe ye-UV siyaboniswa.

Isistimu ilandelela Umthamo, Amandla e-UV, Isikhathi Sokukhishwa Kwemisebe, kanye Nesikhathi Sokwelashwa uma isiguli selashwa.

Lokhu kungashintshwa esikrinini sokuqinisekisa ukwelashwa. Bheka Isigaba 3.8 Ukwelashwa Okulungisiwe.

Kunamamodi amabili okwelashwa kwe-UV atholakalayo, i-Continuous ne-Pulsed. Kumodi ye-Continuous ukukhishwa kwe-UV kuzinzile phakathi nesikhathi sokwelashwa. Kumodi Pulsed (ye-Pulsed), ukukhishwa kwe-UV kuyavuleka futhi kuvaleke ngokwezikhawu ezikhethe umsebenzisi.

Ukuze ubone izilinganiso eziphelele zokwelapha bheka Isigaba 7.2 Izilinganiso Zokwelashwa kubandakanye namasethingi afakiwe namazinga okwelashwa.

3.3. Ngaphambi Kokukhanyisa Isistimu

Umsebenzisi unesibopho sokuqinisekisa ukuthi i-KXL System isebenza kahle ngaphambi kokuqala ukwelapha.

Ukuqinisekisa ukuthi isistimu isebenza kahle, cabangela amaphuzu alandelayo ayisibopho:

- Hlola idivayisi, izisetshenziswa, nezintambo zokuxhuma ukuthi azilimele yini.
- Hlola iwindi lengilazi lembobo yomsebe ukuthi alilimele futhi lihlanzekile. Uma iwindi lilimele, ungayisebenzisi kodwa xhumana neSevisi Yamakhasimende. Bheka isigaba 4.6 ukuthola imiyalelo yokuhlana.
- Cabangela imithetho yendawo yokusetshenziswa kwamadivayisi apha thekayo kagesi nama-optic ezokwelapha.

3.4. Ukulungiselela Isistimu

Beka i-KXL System iqondane netafula lokwelapha noma nesihlalo. Khiya amasondo ukuze uqiniseke ukuthi idivayisi ayinyakazi.

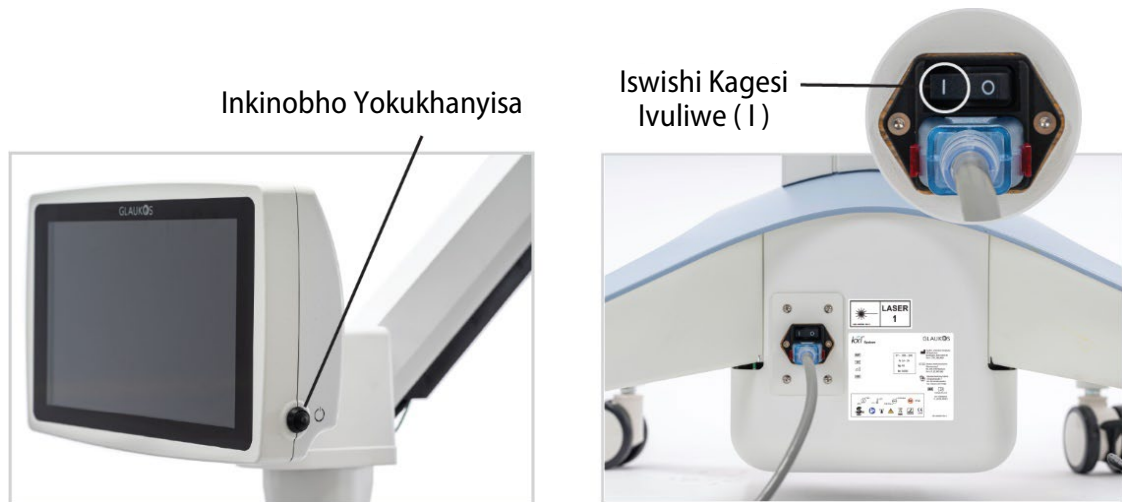
Gcina ikhanda le-optics elinomthombo we-UV kanye nekhamera kukude nokukhanya okugqamile (okuwukuthi, njengokuyibeka phambi kwamafasitela) uma isistimu isetshenziswa.

3.5. Ukukhanyisa Isistimu

Khanyisa iswishi kagesi esiqwini se-KXL System, eceleni kwentambo kagesi exhunywayo. Le swishi ifaka ugesi we-AC ku-KXL System. Bheka isithombe esingezansi.

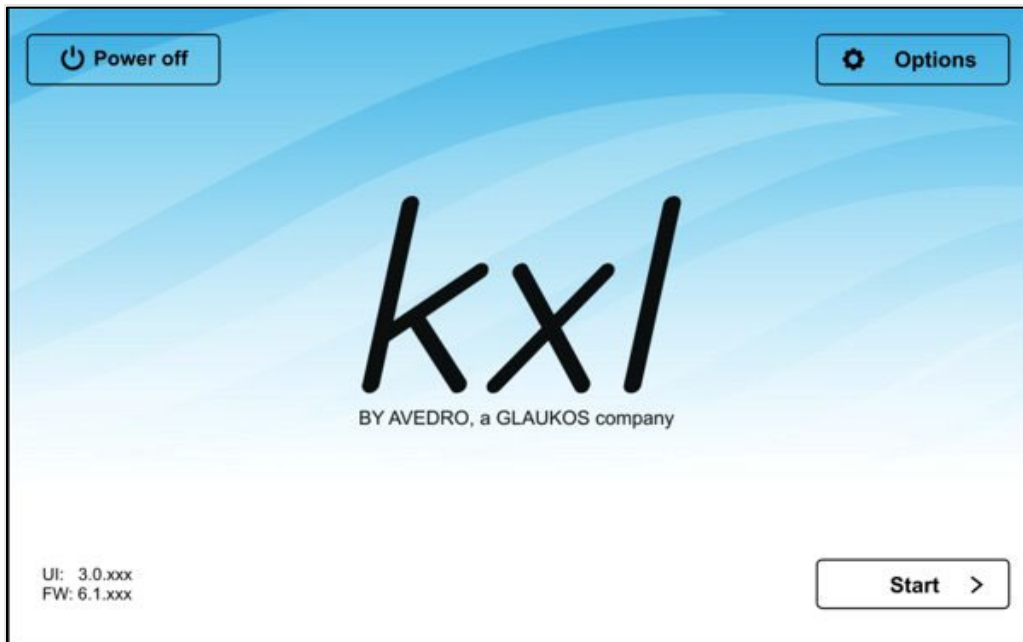
Cindezela bese udedela inkinobho yokukhanyisa eceleni kwesikrini se-KXL. Isithombe esingezansi. I-KXL System izoqala ukuvuleka, okulayisha isistimu yokusebenza kwayo, kuvule uhlelo, bese ihlola amandla kagesi.

QAPHELA: Uma kunephutha uma iqala ukuvuleka, sicela ubheke lthebula Lemiyalezo Yamaphutha esigabeni Sokuxazulula Izinkinga Kusistimu 4.5 ukuze uthole ulwazi oluthe xaxa.



Isithombe 7. Inkinobho Yokukhanyisa (kwesokunxele) kanye neSwishi Kagesi (kwesokudla)

Esikrinini sesihloko, cindezela Start (u-Start) ukuze udlulele esikrinini sokwelashwa kwesiguli.



Isithombe 8. Isikrini Sesihloko

3.6. Ikhadi Lokuvula Ukwelashwa

Faka ikhadi lokwelapha esikhaleni se-RFID esikwesokunxele sesikrini.

QAPHELA: Uma kunenkinga yokufunda ikhadi, phendula ikhadi bese ulifaka futhi. Qiniseka ukuthi ushiya ikhadi kuleso sikhala imizuzwana okungenani eyi-10.



Isithombe 9. Faka Ikhadi Lokwelashwa Isikrini

3.7. Ukuqinisekisa Ukwelashwa

Uma ikhadi lokuvula ukwelashwa selifakiwe, khetha iso okufanele lelashwe: OS noma OD.

QAPHELA: Qiniseka ukuthi ukhetha iso ozolelapha kungenjalo inkinobho Confirm (Yokuqinisekisa) ngeke itholakale.

Isikrini sokuqinisekisa ukwelashwa sizofaka izilinganiso ezivamile ezinhlotsheni ezilandelayo zokwelashwa, uketshezi lwe-riboflavin, kanye nezilinganiso ezivamile zokwelashwa.

QAPHELA: Izilinganiso zokwelashwa ezivamile kanye nalo lonke uhlelo lwezilinganiso zokwelashwa ze-KXL System ziyatholakala Izilinganiso Zokwelashwa Isigaba 7.2 sale manuwalu.

Ukuze usebenzise amasethingi avamile, cindezela ukuthi qinisekisa ukuze uqale ukuvumelanisa irimothi. Ukuze ushintshe amasethingi okwelapha, bheka Ukwelashwa Okulungisiwe isigaba 3.8.

Treatment confirmation

4 treatments left on card

Select the eye to treat: OS (selected), OD

Treatment type: Accelerated Epi-Off CXL (default)

Formulation: VibeX Rapid

Induction time: 10 min 0 sec

UV irradiance: 30 mW/cm²

Total UV dose: 7.2 J/cm²

UV delivery: Pulsed

Pulse duration: On 1.0 sec, Off 1.0 sec

Total UV treatment time: 8 min 0 sec

Maximum number of pauses: 2

Maximum pause duration: 2 min

Treatment shape: Circle 9 mm (diameter)

Buttons: Cancel, Save as clinic preset, Confirm

Isithombe 10. Isikrini Sokuqinisekisa Ukwelashwa

3.8. Ukwelashwa Okulungisiwe

Izilinganiso ezilandelayo ezivamile zingalungiswa ukuze kushintshwe ukwelashwa ngokucindezela inkinobho yokukhuphula (+) neyokwehlisa (-), bheka Isithombe 10:

- Isikhathi sokuqala
- Ukukhishwa kwemisebe ye-UV
- Umthamo we-UV ophelele
- Ukukhishwa kwe-UV (ye-pulsed noma ye-continuous) Uma ukhethe ukukhishwa kwe-UV kwe-pulsed, ungashintsha nobude balowo mjikelezo.

QAPHELA: Yize izilinganiso zingase zishintshwe, umthamo we-UV ophelele ulawulwa yimikhawulo yekhadi lokuvula ukwelashwa.

Ngemva kokulungiswa kwamasethingi, cindezela ukuthi qinisekisa ukuze uqale ukuvumelanisa irimothi, noma uma ufisa ungase ulondoloze isethingi elungisiwe njengohlelo oselucushiwe ozolusebenzisa ngesikhathi esizayo. Bheka Amasethingi Asecushiwe ekhasini elilandelayo.

Amasethingi Asecushiwe

Amasethingi asecushiwe avumela umsebenzisi ukuthi alondoloze amasethingi amane okwelapha osekucushiwe kohlobo lokwelapha ngalunye. Ukuze ulondoloze amasethingi okwelapha asecushiwe, cindezela ukuze ukhethe okucushiwe okutholakalayo; bese ucindezela ukuthi londoloza.

Amasethingi asecushiwe angasulwa uma engasadingeki.

QAPHELA: Amasethingi asecushiwe agcinwa futhi atholakale eSikrinini Sokuqinisekisa Ukwelashwa ngaphansi kwemenyu eyehlalo yezinhlobo Zokwelapha.



Manage Clinic Presets

Select clinic preset

Preset 1:	☐ Accelerated Epi-off CXL [6 mW/cm ² , 1 J/cm ²]	 Used
Preset 2:	☐ Accelerated Epi-off CXL (Preset 2)	 Available
Preset 3:	☐ Accelerated Epi-off CXL (Preset 3)	 Available
Preset 4:	☐ Accelerated Epi-off CXL (Preset 4)	 Available

Select clinic preset to save or delete.
If the preset is already used, you need to delete first,
before saving it at the same location.

Delete **Close** **Save**

Isithombe 11. Londoloza Ukwelashwa Okulungisiwe njengamaSethingi Asecushiwe Okwelapha

3.9. Ukuvumelanisa Irimothi

Uma amasethingi esekhethiwe, cindezela ukuthi qinisekisa esikrinini sokuqinisekisa ukwelashwa. Isistimu izokunikeza imizuzwana eyi-15 ukuze uvumelanise nerimothi.

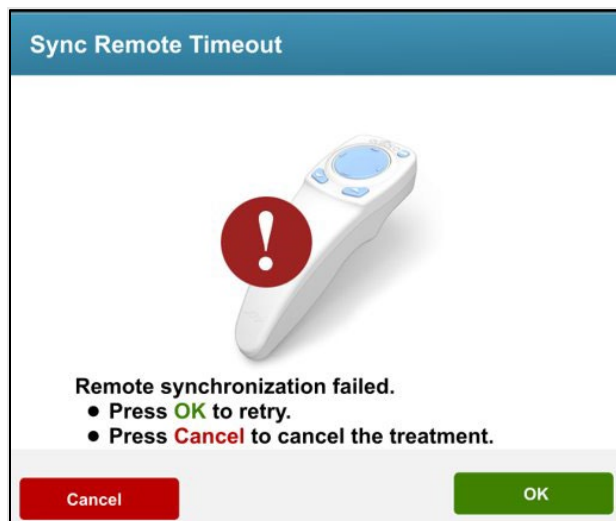


Isithombe 12. Isikrini Sokuvumelanisa Irimothi

Cindezela noma iyiphi inkinobho eya ohlangothini oluthile kurimothi ukuze uvumelanise irimothi phakathi nesikhathi semizuzwana eyi-15. Lokhu kuyafuneka kuzo zonke izinqubo uma ufisa ukusebenzisa irimothi.

Isistimu ye-KXL izokhala njalo emizuzwaneni emi-2 ngesikhathi sokuvumelanisa semizuzwana eyi-15.

Uma inkinobho yokuvumelanisa kurimothi ingacindezelwe phakathi nemizuzwana eyi-15, kuzovela isikrini esibonisa ukuthi isikhathi sokuvumelanisa irimothi siphelile.

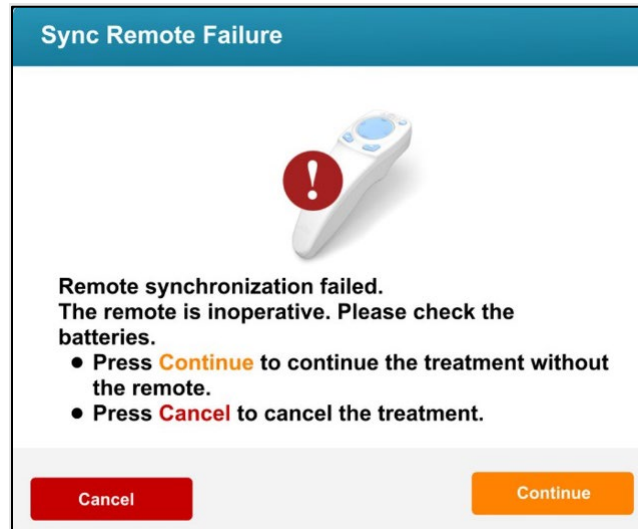


Isithombe 13. Isikrini Esivela Uma Kuphela Isikhathi Sokuvumelanisa Irimothi

Uma kuvela le nkinga, bheka Izinkomba Zesimo Serimothi ekhasini elilandelayo ukubona izinkinga zebhethri okungenzeka zikhona.

Umsebenzisi angase azame ukuphinda avumelanise irimothi kabili. Uma ukuvumelanisa kungaphumeleli, isistimu izokunika ithuba lokuqhubeka nokwelashwa ngaphandle kwerimothi noma ukhansele ukwelashwa.

OKUBALULEKILE: Umsebenzisi usengasebenzisa izilawuli ezisesikrinini ukuqondisa i-UV ngaphandle kwerimothi.



Isithombe 14. Ukuhluleka Ukuvumelanisa Irimothi

Izinkomba Zerimothi

Irimothi inezibani ezimbili zenkomba ezinikeza ulwazi ngesimo serimothi nebhethri. Isibani sephedi yesithupha siyakhanya kuyo futhi isibani sebhethri sikhanyisa inkinobho yebhethri. Uma kunenkinga yokvumelanisa nesistimu noma nebhethri, bheka ithebula elingezansi ukuze uthole usizo.

Izinkomba Zerimothi	
Inkomba 'Yesibani Sephedi Yesithupha'	Incazelo
Akukho ukukhanya	Icinyiwe
Ukukhanya okuluhlaza okuzungezayo	Iyavumelanisa
Ukukhanya okuluhlaza okunganyakazi	Isivumelanisile futhi imi ngomumo
Ukukhanya okuwolintshi okunganyakazi	Ukuvumelanisa kunqamukile
Inkomba 'Yesibani Sebhethri'	Incazelo
Akukho ukukhanya	Icinyiwe
Ukukhanya okuluhlaza okunganyakazi	Ibhethri likahle
Ukukhanya okuwolintshi okunganyakazi	Ibhethri lidinga ukushintshwa
Ukukhanya okuwolintshi okufilizayo	Ibhethri kufanele lishintshwe (ama-AA ama-2)

3.10. Ukuzihlola Kwangaphakathi Kwe-KXL System

I-KXL System izihlola ngaphakathi ngokwayo ngaphambi kokwelashwa ngakunye ukuze iqiniseke ukuthi i-UVA icushwe kahle. Lokhu kuhlola kwangaphakathi kusebenzisa iqoqo eliphindaphindayo lamasensa e-optics ukuqiniseka ukuthi kuzokhishwa amazinga afanele e-UVA ekwelashweni ngakunye. Uma ukuzihlola kwangaphakathi kuhluleka, kuvela umyalezo wephutha, futhi ukwelashwa akukwazi ukuqhubeka. Uma lokhu kwenzeka, sicela uqaphele noma imuphi umyalezo wephutha futhi usebenzisa ithebula lemyalezo yephutha ukuthatha isinyathelo sokulandelela.

3.11. Lungiselela Isiguli

Qiniseka ukuthi isiguli silele cababa sibheke phezulu etafuleni lokwelashwa noma siqethukile esihlalweni sokwelashwa. Ikhanda lesiguli kufanele lihlale phezu komcamelo.

Lungisa itafula noma isihlalo nomcamelo ukuze isiguli sinethezeke ngesikhathi sokwelashwa ngaphandle kokunyakazisa ikhanda.

Sebenzisa i-speculum evalayo nezembozo ozikhethayo usebenzisa inqubo evamile yokwelapha.

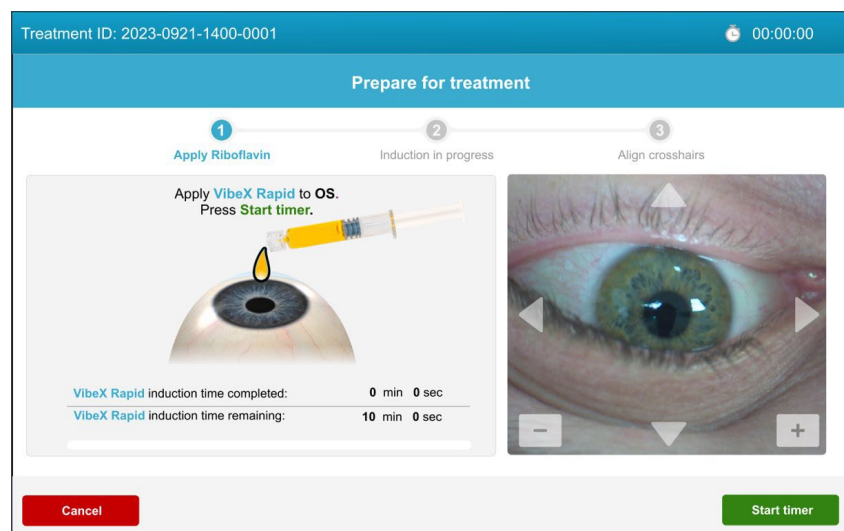
- I-Epithelium Off: Uma kwenziwa inqubo ye-“epithelium off”, susa i-epithelium yenhlamvu yeso ngaphambi kokuthela i-riboflavin.
- I-Epithelium On: Uma kwenziwa inqubo ye-“epithelium on”, ungayisusi i-epithelium yenhlamvu yeso ngaphambi kokuthela i-riboflavin.
- I-Lasik Xtra: Uma kwenziwa inqubo ye-“Lasik Xtra”, thela i-riboflavin esiqwini solwelwesi lweeso ngokushesha ngemva kokusika nge-laser ngaphambi kokubuyisela ungwengwezi lwe-cornea.

3.12. Ukufaka I-Riboflavin

Ukuthela i-riboflavin kuzovumelana nemiyalelo yokusebenzisa i-riboflavin (i-IFU) efanele. Ukuthola ulwazi oluthe xaxa mayelana nezingxube ze-riboflavin ezigunyazwe yi-KXL, bheka i-IFU ye-riboflavin eanele.

Lungiselela Ukwelashwa

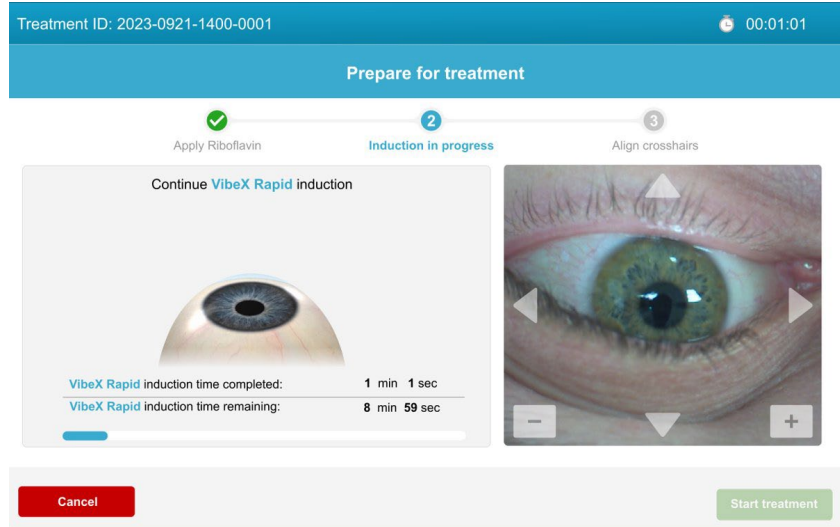
Ngemva kokuthi iso lesiguli selilungiselelwe ngokuthelwa kokuqala kwe-riboflavin, cindezela isibali sesikhathi ukuze uqale ukufakwa kwe-riboflavin.



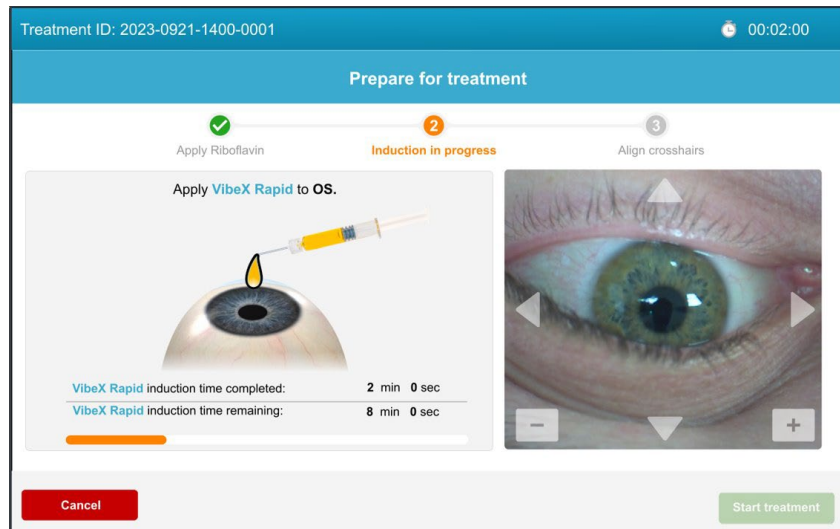
Isithombe 15. Isikrini Sokulungiselela Ukufakwa Kwe-Riboflavin

Ukufaka I-Riboflavin

I-KXL System izonikeza iziqondiso ezizwakalayo nezibonakalyo zokuthela i-riboflavin ngendlela ecushelwe isikhathi phakathi nesikhathi sokufakwa kwayo.



Isithombe 16. Isikrini Sokufakwa Okuqhubekayo



Isithombe 17. Isiqondiso Esibonakalyo Ngesikhathi Sokufakwa Kwe-Riboflavin

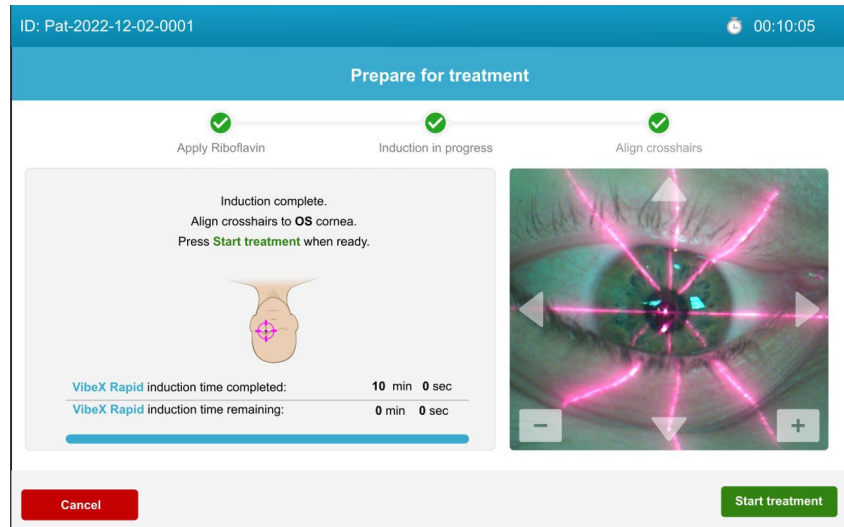
3.13. Qondanisa Iziboya Zomshini Nenhlamvu Yeso Lesiguli

QAPHELA: Ama-laser okuqondisa abomvu azokhanya imizuzwana engama-60 ngaphambi kokuphela kwesikhathi sokufakwa kwe-riboflavin.

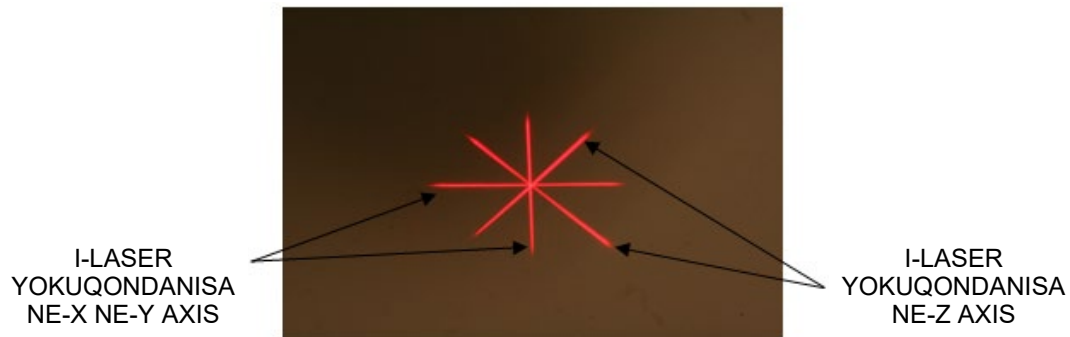
Uma ukufakwa kwe-riboflavin sekuphelile, qondanisa iziboya zomshini nenhlamvu yeso lesiguli.

Yisa ikhanda le-KXL emuva naphambili nakwesokudla nesokunxele kuze kube yilapho iziboya ezibomvu ze-X/Y axis ziqondana nemaphakathi lenhlamvu yeso elizokwelashwa.

Yisa ikhanda le-KXL phansi naphezulu ukuze uqondanise iziboya zesibili ezibomvu ze-Z axis nemaphakathi leziboya zokuqala ezibomvu.

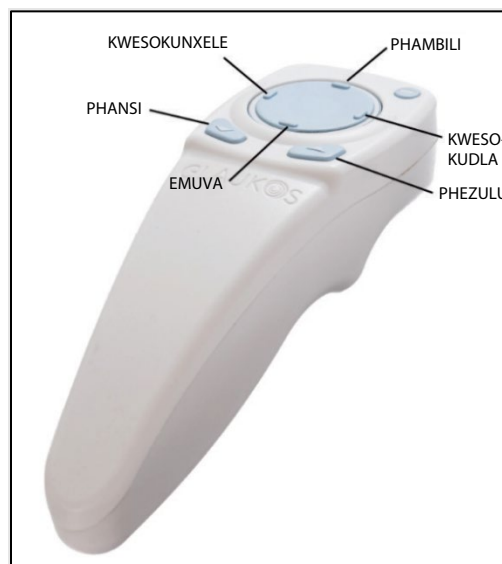


Isithombe 18. Iziboya Ezibomvu Zokuqondanisa Nenhlamvu Yeso Lesiguli



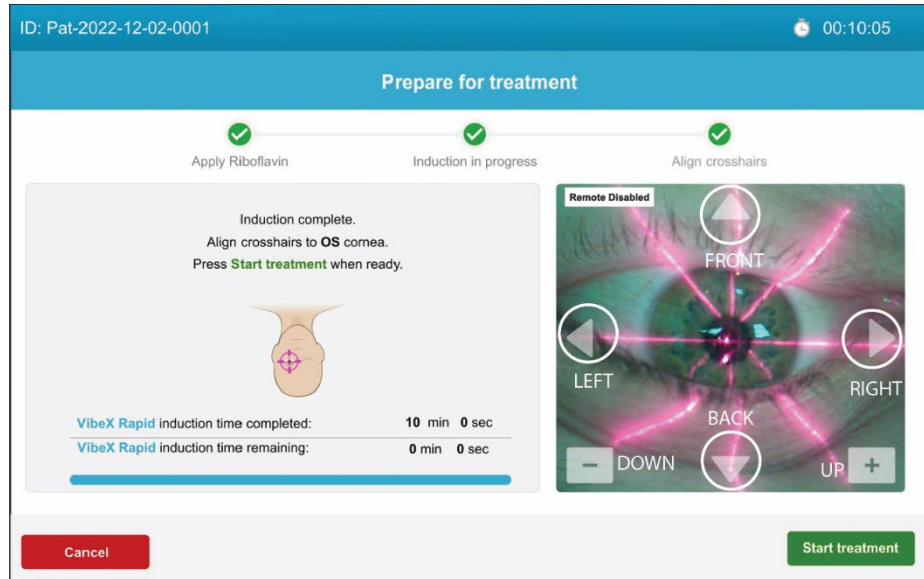
Isithombe 19. Ukuqondanisa Iziboya Ezibomvu

Ukuqondanisa kahle kungenziwa ngokusebenzisa irimothi engaxhunyiwe ngentambo noma ngokucindezela imicibisholo evela esikrinini.



Isithombe 20. Imisebenzi Yokuqondanisa Ngerimothi

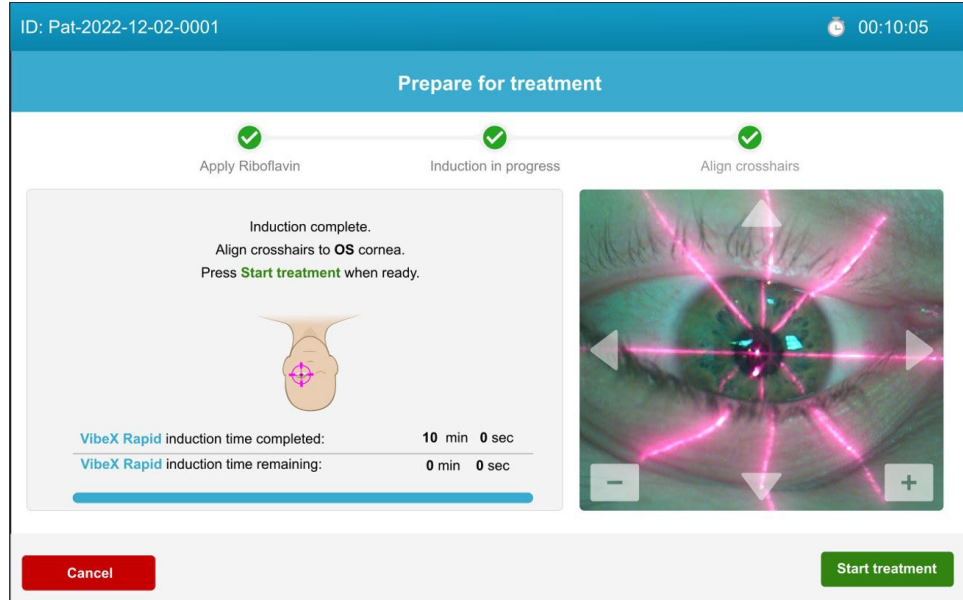
Uma irimothi ingaxhunyiwe, ukuqondanisa kahle kusengenziwa mathupha ngokusebenzisa imicibisholo esesikrinini (kwesokunxele, esokudla, phambili, emuva) kanye nenkinobho yokwenyusa (+) neyokwehlisa (-).



Isithombe 21. Ukuqondanisa Kahle Esikrinini

3.14. Qala Ukwelapha Nge-UV

Qalisa ukwelapha nge-UV ngokucindezela ukuthi qala ukwelapha.



Isithombe 22. Qala Ukwelapha Nge-UV

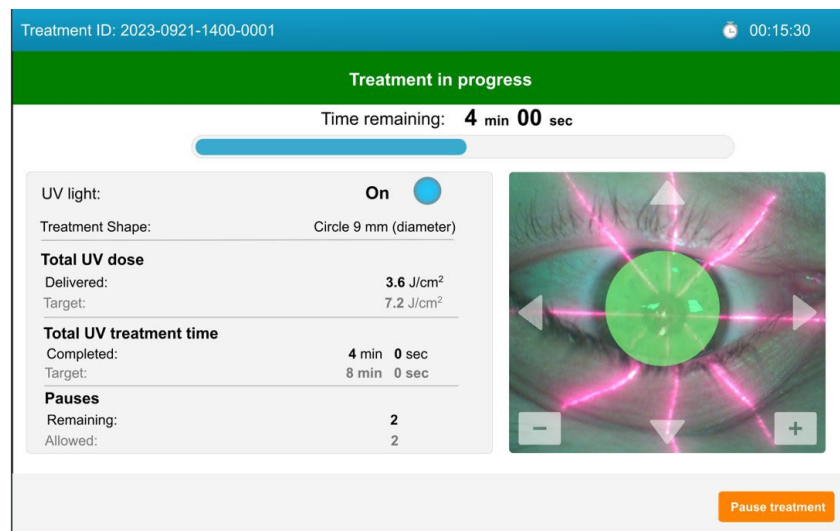
Tshela isiguli ukuthi singanyakazi futhi sibheke ngqo iziboya ezibomvu zokuqondanisa zika-X no-Y ngaso sonke isikhathi sokwelashwa.

 Izexwayiso	
1.	Qala ukwelashwa kuphela ngemva kokuthelwa kwe-riboflavin.
2.	Qiniseka ukuthi i-KXL System kanye netafula noma isihlalo sesiguli kuboshiwe futhi akunyakazi ngemva kokuqondisa nangesikhathi sokwelashwa.

 Qaphela	
1.	Kuphuma ukukhanya kwe-UV uma iwindi lenkomba yokukhanya kwe-UV esekhanda le-optics ifiliza umbala oluhlaza okwesibhakabhaka noluhlaza okotshani.

3.15. Ukuqapha Ukwelapha Nge-UV

Hlola njalo ukuthi indawo ofuna ukuyelapha enhlamvwini yeso ikhanyiswe ngokukhanya kwe-UVA futhi ulungise uma kudingeka usebenzisa irimothi engaxhunyiwe ngentambo noma imicibisholo esesikrinini.



Isithombe 23. Isikrini Sokwelapha Okuqhubekayo

QAPHELA: Uma usebenzisa imodi yokwelapha ye-pulsed, ukukhanya kwe-UVA ngeke kubonakale ngezikhathi ICIMILE. Isikrini sika-opharetha ngeke sishintshe sithi “Ukukhanywa kwe-UV: KUCINYIWE” phakathi nale mijikelezo.

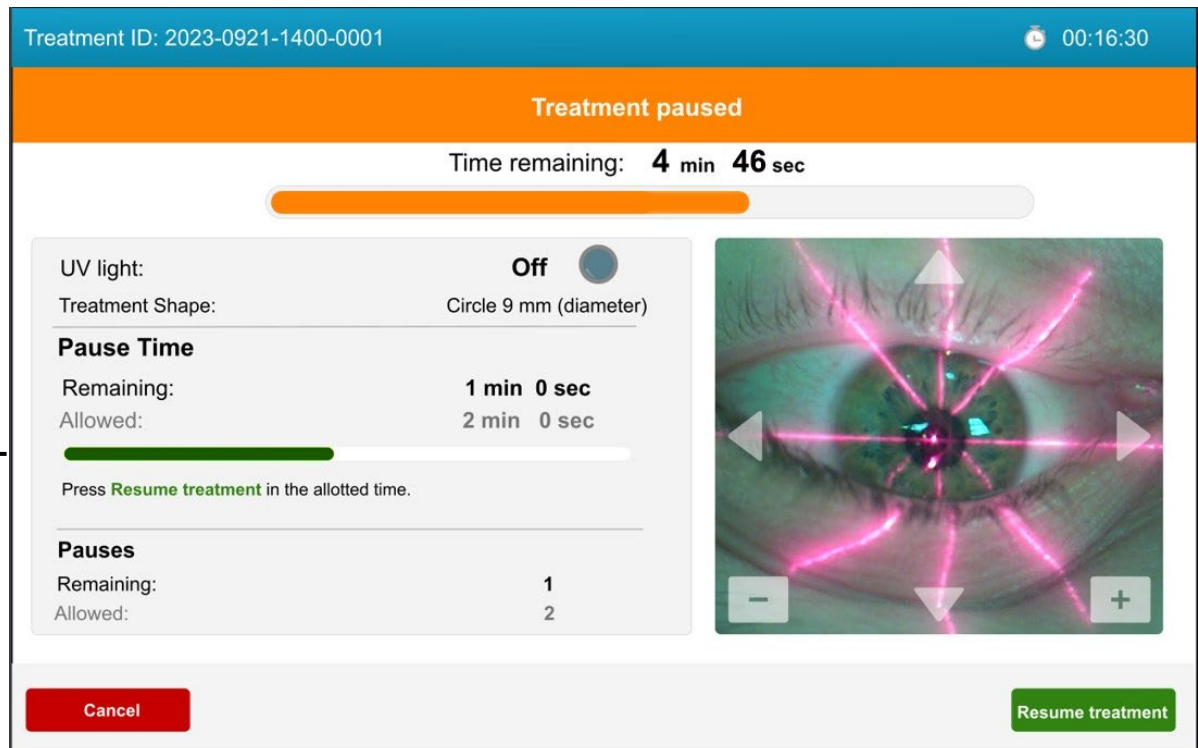
3.16. Ukumisa Ukwelapha Nge-UV

Uma kudingeka ukuthi ukwelapha nge-UV kumiswe, i-KXL System ivumela amakhefu amabili. Ikhefu ngalinye lingathatha imizuzu efinyelela kwemibili.

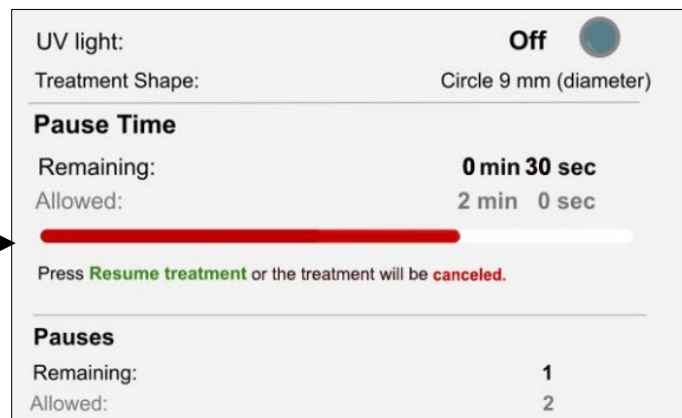
Esikrinini sokumisa uKwelashwa, bheka Isithombe 24, ukuncipha kwesibali sesikhathi sekhefu kanye nebha kubonisa isikhathi esesidlulile. Kunemisindo ezwakalayo yamathoni ngesikhathi sekhefu.

Uma isikhathi esisele sifinyelela emizuzwaneni engama-30, ibha iyashintsha kusukela embaleni oluhlaza ibe bomvu. Cindezela ukuthi Qhubeka Nokwelashwa singakapheli isikhathi esinikeziwe ukuze ubuyele ekwelapheni kwakho. Uma uqhubeka nokwelapha, ikhefu lisuke seliphelile.

OKUBALULEKILE: Uma ungacindezeli ukuthi Qhubeka Nokwelashwa singakapheli isikhathi esinikeziwe, wonke amakhefu ayaphela. Kufanele ukhansele ukwelapha ngisho noma lokhu kwenzeka ngekhhefu lokuqala.

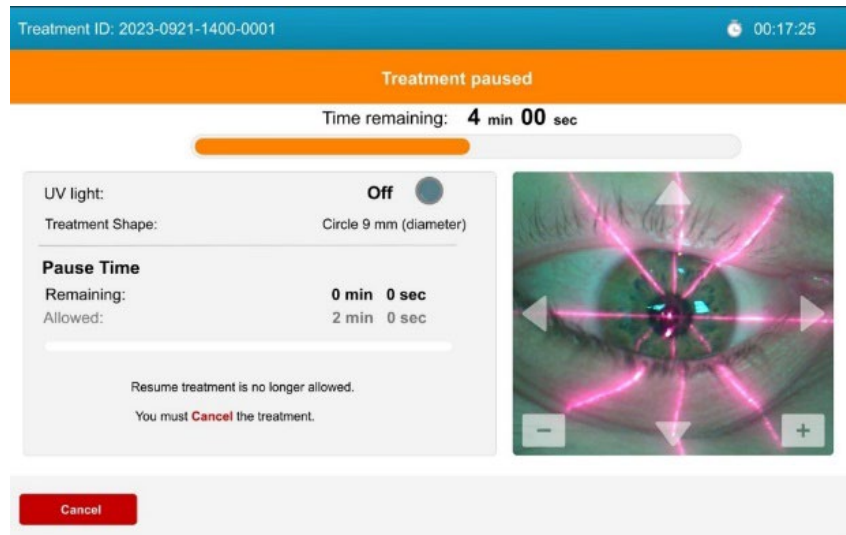


Isexwayiso
semizuzwana
engama-30



Isithombe 24. Ukumisa Ukwelapha Nge-UV

Cindezela uKhansela ukuze uqede ukwelashwa ngemva kokuphela kwamakhefu.



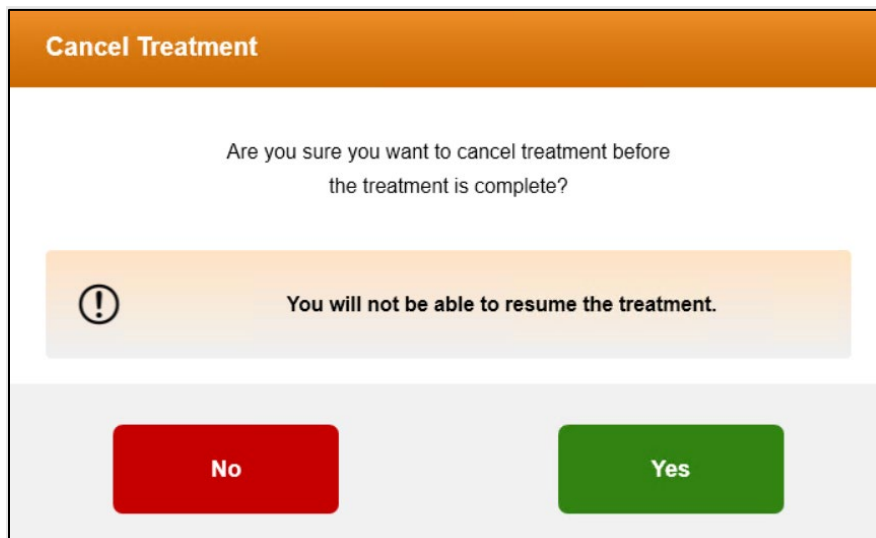
Isithombe 25. Amakhefu Okwelashwa Aphelile

3.17. Ukukhansela Ukwelapha Nge-UV Okuqhubekayo

Noma nini ngesikhathi sokuqhubeka kokwelapha nge-UV, ukwelashwa kungase kukhanselwe.

Esikrinini 'Treatment in progress' ('Sokwelapha okuqhubekayo') cindezela ukuthi Pause (Misa), bese ucindezela Cancel (uKhansela) esikrinini esithi 'Treatment Paused' ('Ukwelapha Kumisiwe').

Ngokulandelayo kuzovela umyalezo wesixwayiso, oqinisekisa ukuthi umsebenzisi ufuna ukukhansela ukwelapha.



Isithombe 26. Ukukhansela Ukwelapha Nge-UV Okusaqhubeka

3.18. Ukwelapha Nge-UV Okuqediwe

Ngemva kokuphela kokwelapha nge-UV, isistimu izofeza ukufingqwa kokwelashwa.

Treatment ID: 2023-0921-1400-0001 00:18:45

Treatment summary

Treatment type: Accelerated Epi-off CXL

Status: Complete ✓
Treated Eye: OS
Treatment Shape: Circle 9 mm (diameter)
Total UV dose
Delivered: 7.2 J/cm² ✓
Target: 7.2 J/cm²
Total UV treatment time
Completed: 8 min 0 sec ✓
Target: 8 min 0 sec
Total elapsed time: 18 min 45 sec



Export report Done

Isithombe 27. Isikrini Sokufingqa Ukwelashwa Okuqediwe

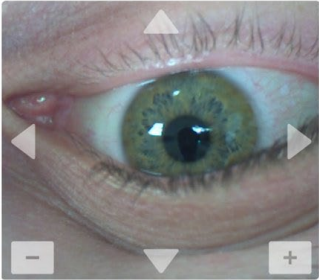
QAPHELA: Ukwelapha okukhanseliwe/ukwelapha okungaqediwe kuzoboniswa nasekufingqweni kokwelashwa.

Treatment ID: 2023-0925-0842-0500 00:03:05

Treatment summary

Treatment type: Lasik Xtra

Status: Not completed ✗
Treated Eye: OD
Treatment Shape: Circle 9 mm (diameter)
Total UV dose
Delivered: 2.4 J/cm² ✗
Target: 2.7 J/cm²
Total UV treatment time
Completed: 1 min 0 sec ✗
Target: 1 min 30 sec
Total elapsed time: 3 min 05 sec



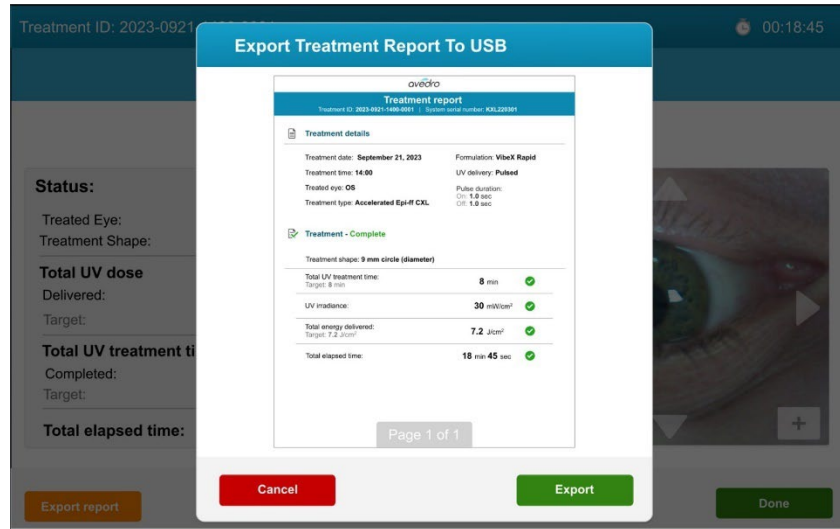
Export report Done

Isithombe 28. Isikrini Sokufingqa Ukwelashwa Okungaqedwanga

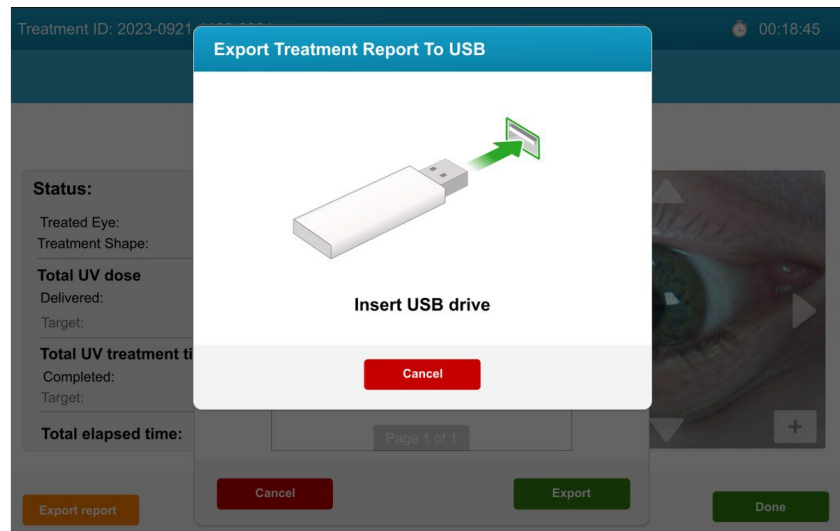
3.19. Khipha Umbiko Wokufingqa Ukwelashwa

Imibiko yokufingqa ukwelashwa ingakhishwa ku-KXL System ifakwe ku-USB ehlinzekwe yikhasimende.

- Cindezela ukuthi khipha umbiko esikrinini sokufingqwa kokwelashwa.
- Cindezela ukuthi khipha esikrinini esivelayo.
- Faka i-USB oyinikezwe yikhasimende.



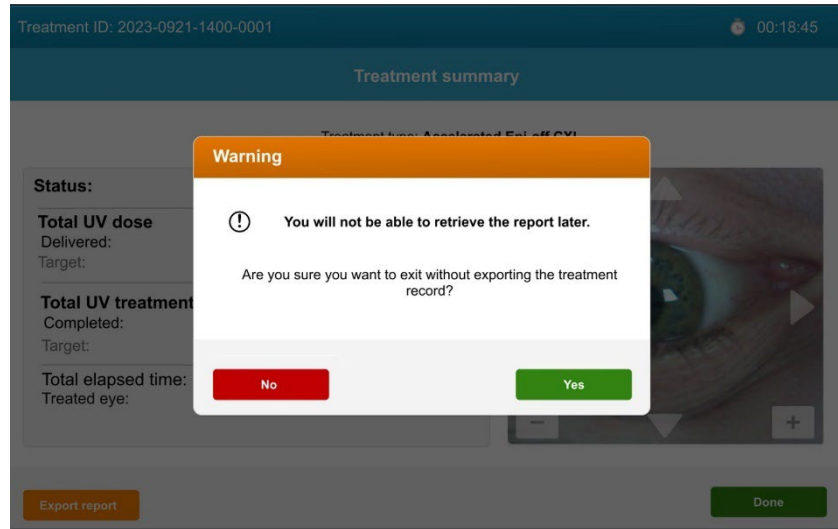
Isithombe 29. Faka Umbiko Wokwelashwa ku-USB



Isithombe 30. Faka Idayivu Ye-USB Ukuze Ukiphe Umbiko

Ukwelashwa kungaqedelwa futhi ngaphandle kokukhipha umbiko wokufingqwa kokwelashwa.

QAPHELA: Abasebenzisi bangaqeda ukwelashwa ngaphandle kokukhipha umbiko wokufingqwa kokwelashwa ngokucindezela ukuthi kuqediwe esikrinini sokufingqa ukwelashwa bese beqinisekisa lokho abakukhethile.

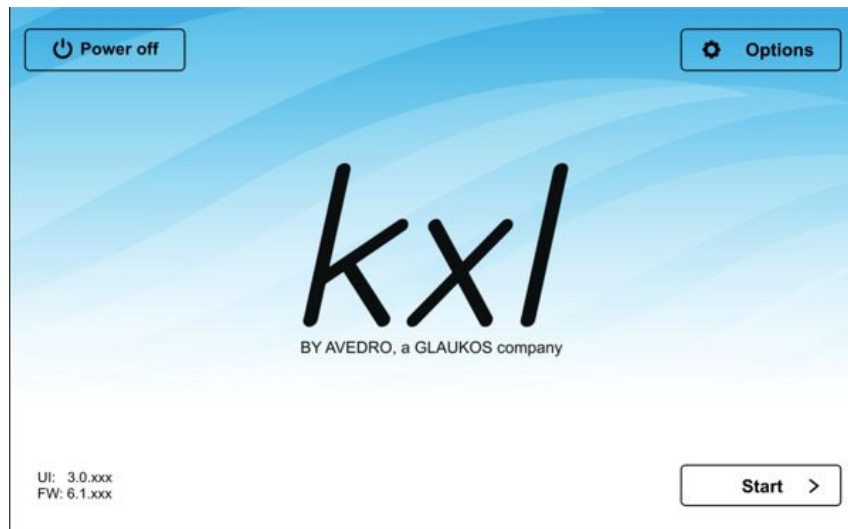


Isithombe 31. Ukuqedela Ukwelapha Ngaphandle Kokukhipha Umbiko Wokwelashwa

3.20. Ukucima I-KXL System

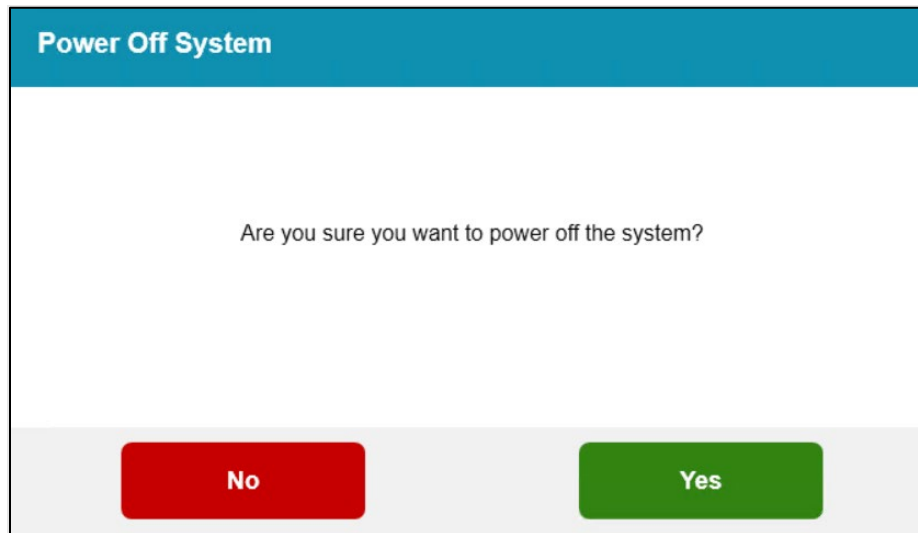
Ngemva kokuqeda ukwelapha, isistimu izobuyela esikrinini sesihloko.

Cindezela inkinobho yokucima ugesi ukuze uvale i-KXL System.



Isithombe 32. Ukucima Esikrinini

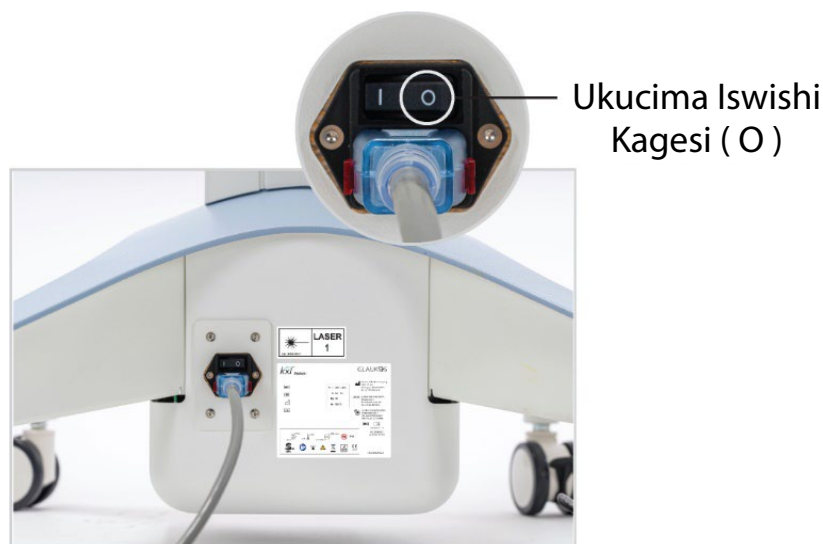
Cindezela ukuthi yebo ukuze uqinisekise ukucima isistimu.



Isithombe 33. Qinisekisa Ukucima I-KXL System

Linda isofthiwe ivale futhi isikrini singabonisi lutho.

Cima iswishi kagesi esiqwini se-KXL.



Isithombe 34. Iswishi Kagesi Uma Icinyiwe

3.21. Imenyu Yongakukhetha

Kunamanye amasethingi esistimu angafinyelelwe esikrinini sesihloko esiyinhloko. Cindezela izinketho ukuze uvule Imenyu Yongakukhetha. Kunezinto ezintathu ongazikhetha kumenyu:

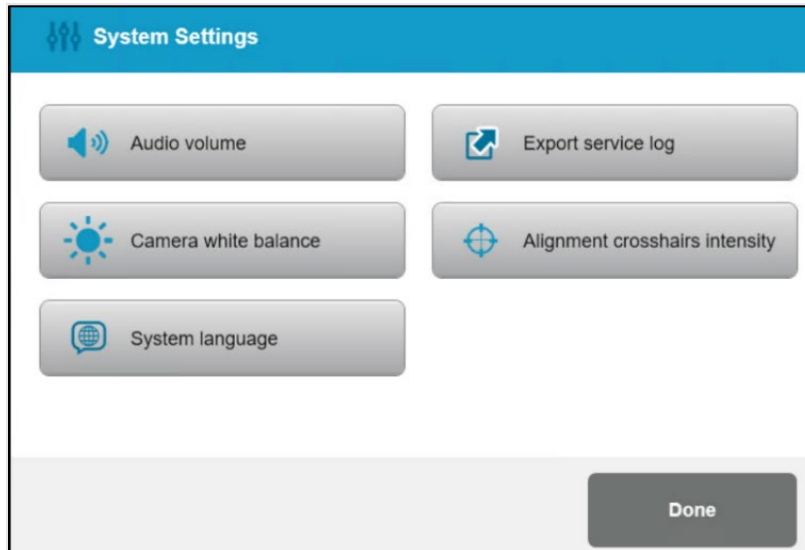


Isithombe 35. Imenyu Yongakukhetha

- Amasethingi Esistimu: Amasethingi amahlanu esistimu angashintshwa ngokwendlela umsebenzisi afuna ngayo.
- Amasethingi Esevisi: Asetshenziswa yi-Glaukos nezisebenzi zesevisi kuphela futhi adinga ikhadi lesevisi lokuwavula.
- Imodi Yokubonisa: Ivumela ukuqeqesha umsebenzisi ngesistimu ngaphandle kokusebenzisa ukukhanya kwe-UV noma amakhadi okwelashwa.

3.22. Imenyu Yamasethingi Esistimu

Ngezansi kunezinto ongazikhetha kumenyu zamasethingi esistimu nendlela ezisebenza ngayo.



Isithombe 36. Amasethingi Esistimu

- Ivolumu yomsindo: Ivumela ukulungiswa kwezinga levolumu yesistimu.
- Isilinganiso sokukhanya kwekhamera: Sivumela ukukhetha ukukhanya phakathi kwamasethingi amathathu: I-Tungsten 2800K (evamile), i-Daylight 5000K noma i-Daylight 6500
- Ulimi lwesistimu: Ivumela umsebenzisi ukuba ashintshe isikrini kusuka esiNgisini kuya kolunye lwezilimi ezinhlanu.
- Thumela ilogi yokusevisa: Kuvumela umsebenzisi ukuba athumele amalogi okusevisa ku-USB (ayifakiwe).
- Izinga leziboya zokuqondisa: Ivumela ukulungiswa kokugqama kweziboya zokuqondisa.

4. UKUNAKEKELA / ISEVISI

Izincazelo	
Ukunakekelwa	Ukunakekelwa kushiwo lezo zinqubo ezingenabo ubuxhaxhaxha okufanele zenziwe u-opharetha ovamile ukuze agcine isistimu isebenza ngendlela efanele.
Isevisi	Isevisi isho imisebenzi ehloselwe ukuba yenziwe kuphela ummeleli wesevisi onegunya elifanele.

4.1. Inqubomgomo Yokufakwa Kohlelo

Ngekhasimende ngalinye elisha le-KXL System, isisebenzi se-Glaucos esiqeqeshiwe/esigunyaziwe sifaka futhi sisethe isistimu, futhi siqinisekise ukuthi isistimu isebenza ngendlela efanele. Noma ikuphi okunye ukulungiswa kwehadiwe, ngaphandle kwalokho okushiwo ngokuqondile ukuze isebenze kahle, kufanele kwenziwe ngumdayisi ogunyazwe yi-Glaucos, noma ngaphansi kwesiqondiso sakhe.

4.2. Ukunakekela Komsebenzisi

Ngokunakekelwa nokuseviswa njalo, isikhathi sokusebenza kwale divayisi esilindelwe siyiminyaka eyisikhombisa.

Ukunakekelwa njalo kuzosiza ekugcineni i-KXL System ikahle futhi isebenza. Kunconywa ukunakekela komsebenzisi okulandelayo.

Ngaphambi kokwelapha ngakunye:

- Hlola idivayisi, izisetshenziswa nezintambo zokuxhuma kanye nentambo kagesi ukuthi azilimele yini; ungazisebenzisi uma zilimele.
- Hlola iwindi lengilazi lembobo yomsebe ukuthi alilimele futhi lihlanzekile. Uma iwindi lilimele, ungayisebenzisi kodwa xhumana neSevisi Yamakhasimende. Bheka isigaba 4.6 ukuthola imiyalelo yokuhlana.

Ngezikhathi ezithile hlola i-KXL System futhi uma kudingeka uhlanze izinto njengoba kuyalelwe esigabeni 4.6.

4.3. Ulwazi Lwesiqinisekiso

Isiqinisekiso sikhishwa eceleni kanye nolwazi lokuthenga.

4.4. Ulwazi Lwesivumelwano Sesevisi

Kungase kube nesivumelwano sesevisi se-KXL System. Xhumana nomdayisi noma ummeleli wendawo we-Glaucos ukuze ubone ukuthi yini etholakalayo endaweni yakini. Wonke amasevisi kufanele enziwe ummeleli wesevisi ofanele ngaphansi kwesivumelwano sesevisi. Uma unenkinga ngesistimu yakho, bheka isigaba 4.5 Sokuxazulula Izinkinga Zesistimu ukuze uthole izinyathelo zokuxazulula ezingasetshenziswa.

4.5. Ukuxazulula Izinkinga Zesistimu

Amaphutha Esistimu

I-KXL System ihlola isimo sakho ngokuzenzekelayo uma iqala. Uma isimo singalungile, isofthiwe ivimbela u-opharetha ukuqala ukwelapha.

Uma kuba khona iphutha lesistimu, sicela ubheke lthebula Lemiyalezo Yamaphutha elibala amaphutha, imbanga kanye nesinyathelo esidingekayo ukuze kuxazululwe iphutha.

Uma uba nanoma ibuphi obunye ubunzima obungenakuxazululwa uma usebenzisa i-KXL System, sicela uxhumane nommeleli ogunyaziwe we-Glaukos endaweni yakini.

Ithebula Lemiyalezo Yamaphutha			
Ino.	Amaphutha	Imbangela	Isinyathelo
1	UNKNOWN_ERROR (IPHUTHA ELINGAZIWA)	Iphutha lenkinga ngokuvamile engasingathwanga	Xhumana nomdayisi noma insizakalo yamakhasimende
2	SYSTEM_SETTINGS_COULD_NOT_BE_SAVED (AMASETHINGI ESISTIMU AWAKWAZANGA UKULONDOLOZWA)	Iphutha le-io lefayela	Xhumana nomdayisi noma insizakalo yamakhasimende
3	VALID_CALIBRATION_DATA_NOT_FOUND (IDATHA YOKUHLELA ESEBENZAYO AYITHOLAKALANGA)	Ukonakala kwefayela	Xhumana nomdayisi noma insizakalo yamakhasimende
4	REQUEST_TO_PRIMARY_BOARD_TIMED_OUT (ISICELO SEBHODI EYINHLOKO SIPHELELWE YISIKHATHI)	Ukulahlekelwa ukuxhumana	Qala isistimu kabusha; uma iphutha liphikelela xhumana nomdayisi noma insizakalo yamakhasimende
5	COULD_NOT_CONTROL_ALIGNMENT_LASERS (AYIKWAZANGA UKULAWULA AMA-LASER OKUQONDISA)	Ukungasebenzi kahle kwe-HW	Xhumana nomdayisi noma insizakalo yamakhasimende
6	ERROR_IN_UPDATE_TREATMENTCARDUSAGE (IPHUTHA LOKUBUYEKEZA UKUSETSHENZISWA KWEKHADI LOKWELASHWA)	Iphutha ekuxhumaneni netegi ye-RFID	Sebenzisa elinye ikhadi; xhumana nomdayisi noma insizakalo yamakhasimende
7	NOT_SAME_CARD_MESSAGE (UMYALEZO WEKHADI OKUNGELONA ELIFANAYO)	Ikhadi lishintshwe phakathi kokuqinisekisa ukwelapha nokuqalwa kwako	Sebenzisa ikhadi elifanayo eliqale ukuqinisekiswa kokwelashwa.
8	SYSTEM_ERROR (IPHUTHA LESISTIMU)	Iphutha elidinga ukusingathwa	Qala isistimu kabusha, uma iphutha liphikelela xhumana nomdayisi noma insizakalo yamakhasimende
9	UV_TREATMENT_COULD_NOT_BE_STARTED (UKWELASHWA KWE-UV AKUQALWANGA)	Ukuqala ukwelashwa kunqatshwe yi-FW	Xhumana nomdayisi noma insizakalo yamakhasimende
10	UV_COULD_NOT_BE_PAUSED (I-UV AYIKWAZANGA UKUMISWA)	Umyalelo wekhefu unqatshwe yi-FW	Xhumana nomdayisi noma insizakalo yamakhasimende

Ithebula Lemiyalezo Yamaphutha			
Ino.	Amaphutha	Imbangela	Isinyathelo
11	TREATMENT_COULD_NOT_BE_COMPLETED (UKWELASHWA AKUKWAZANGA UKUQEDWA)	Umyalelo wokuqedela ukwelapha unqatshwe yi-FW	Xhumana nomdayisi noma insizakalo yamakhasimende
12	Packet reception failed (Ukwamukela amaza kuhlulekile)	Ukulahlekelwa ukuxhumana	Xhumana nomdayisi noma insizakalo yamakhasimende
13	Packet transmit failed (Ukudlulisa amaza kuhlulekile)	Ukulahlekelwa ukuxhumana	Xhumana nomdayisi noma insizakalo yamakhasimende
14	SYSTEM_CONNECTION_HAS_BEEN_LOST_DURING_TREATMENT_TREATMENT_HAS_BEEN_HALTED (UKUXHUMANA KWESISTIMU KULAHLEKILE NGESIKHATHI SOKWELASHWA UKWELASHWA KUMISIWE)	Ukulahlekelwa ukuxhumana	Xhumana nomdayisi noma insizakalo yamakhasimende
15	SYSTEM_FAILED_TO_CONNECT_WITH_DEVICE (ISISTIMU IHLULEKILE UKUXHUMANA NEDIVAYISI)	Ukulahlekelwa ukuxhumana	Xhumana nomdayisi noma insizakalo yamakhasimende
16	ERROR_UVMON_PD1_H (IPHUTHA LE-UV MON PD1 H)	I-PD1 ingama-10% ngaphezu kwenani elihlosiwe lokuphehla	Xhumana nomdayisi noma insizakalo yamakhasimende
17	ERROR_UVMON_PD1_L (IPHUTHA LE-UV MON PD1 L)	I-PD1 ingama-10% ngaphansi kwenani elihlosiwe lokuphehla	Xhumana nomdayisi noma insizakalo yamakhasimende
18	ERROR_UVMON_TRMT_TIME_H (IPHUTHA LE-UV MON ISIKHATHI SOKWELASHWA H)	Ukwelapha kwedlule isikhathi esilindelwe ngaphezu kwemizuzwana emi-3	Xhumana nomdayisi noma insizakalo yamakhasimende
19	ERROR_UVMON_TRMT_TIME_L (IPHUTHA LE-UV MON ISIKHATHI SOKWELASHWA)	Ukwelapha kuphele ngaphezu kwemizuzwana emi-3 ngaphambi kwesikhathi esilindelwe	Xhumana nomdayisi noma insizakalo yamakhasimende
20	ERROR_UVMON_OVERTEMP (IPHUTHA LE-UV MON IZINGA LOKUSHISA ELEQILE)	Izinga lokushisa kwe-UV lingaphezu kuka-50 deg C	Xhumana nomdayisi noma insizakalo yamakhasimende
21	ERROR_UVMON_PD2_H (IPHUTHA LE-UV MON PD2 H)	I-PD2 ingama-10% ngaphezu kwenani elihlosiwe lokuphehla	Xhumana nomdayisi noma insizakalo yamakhasimende
22	ERROR_UVMON_PD2_L (IPHUTHA LE-UV MON PD2 L)	I-PD2 ingama-10% ngaphansi kwenani elihlosiwe lokuphehla	Xhumana nomdayisi noma insizakalo yamakhasimende

Ithebula Lemiyalezo Yamaphutha			
Ino.	Amaphutha	Imbangela	Isinyathelo
23	ERROR_WATCHDOG_FAILURE (IPHUTHA UKWEHLULEKA KWE-WATCHDOG)	I-UV Watchdog iwile.	Xhumana nomdayisi noma insizakalo yamakhasimende
24	ERROR_DTR_DISABLED_UNEXPECTEDLY (IPHUTHA I-DTR IVALEKE KUNGALINDELEKILE)	I-DTR ivalekile.	Xhumana nomdayisi noma insizakalo yamakhasimende
25	ERROR_UV_DISABLED_BY_FW_UNEXPECTEDLY (IPHUTHA I-UV IVALWE YI-FW KUNGALINDELEKILE)	I-UV ivalwe i-firmware kungalindelekile	Xhumana nomdayisi noma insizakalo yamakhasimende
26	SELFTEST_FAILED UV_DTR_ERROR (UKUZIHLOLA KUHLULEKILE IPHUTHA LE-DTR YE-UV)	I-UV ayivulwanga yi-UIC ngesiginali ye-DTR.	Xhumana nomdayisi noma insizakalo yamakhasimende
27	SELFTEST_FAILED UV_WATCHDOG (UKUZIHLOLA KUHLULEKILE I-WATCHDOG YE-UV)	Ihadiwe ye-watchdog ayikwazanga ukuvulwa.	Xhumana nomdayisi noma insizakalo yamakhasimende
28	SELFTEST_FAILED UV_CALIBRATION_CHECKSUM_ERROR (UKUZIHLOLA KUHLULEKILE UKUHELELWA KWE-UV HLOLA IPHUTHA)	Ukuhlolwa kokuphehlwa kwe-CRC kuhlulekile okubonisa ukuthi kungenzeka idatha yonakele	Xhumana nomdayisi noma insizakalo yamakhasimende
29	SELFTEST_FAILED UV_OUT_OF_RANGE (UKUZIHLOLA KUHLULEKILE I-UV INGAPHANDLE KWEBANGA)	I-PD1 ibonise ukuthi i-UV yeqe izinga elingu-+/-10% uma ihlolwa.	Xhumana nomdayisi noma insizakalo yamakhasimende
30	SELFTEST_FAILED MOTION_CONTROL_MOTOR_ERROR (UKUZIHLOLA KUHLULEKILE UKULAWULA IZINJINI IPHUTHA LENJINI)	Izinjini zama-axis ama-3 azibuyiswanga.	Xhumana nomdayisi noma insizakalo yamakhasimende

QAPHELA: Uma uba nanoma ibuphi ubunzima obungenakuxazululwa ngezinyathelo ezihlongozwa kuleli thebula, sicela uxhumane nommeleli ogunyaziwe we-Glaukos endaweni yakini.

Ukushintsha Amabhethri Erimothi Engaxhunyiwe Ngentambo

I-KXL System isebenzisa irimothi enamabhethri ashintshwayo. Ukuze ushintshe amabhethri kurimothi, slayida ingaphambili lerimothi uliyise emuva kuyilapho ubambe futhi uslayide ingemuva lerimothi ohlangothini oluhlukile. Bheka Isithombe 37.

Uma usebenzisa irimothi evamile, bheka Isithasiselo 1.

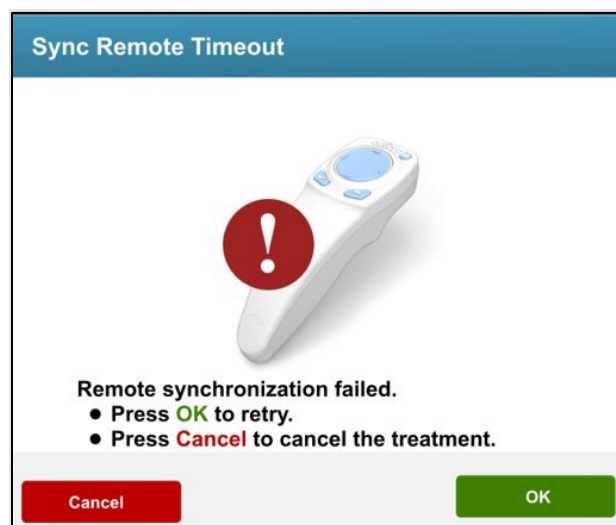


Isithombe 37. Vula Ingoxi Yebhethri

Ukuxazulula Izinkinga Zokuxhuma Irimothi

Uma usebenzisa irimothi evamile, bheka Isithasiselo 1.

Uma amabhethri esephelelwa amandla, isistimu izohluleka ukuxhumana nerimothi. Cindezela okuthi "OK" ukuze uvumelanise irimothi futhi.



Isithombe 38. Ukuphela Kwesikhathi Sokuvumelanisa Irimothi

Uma irimothi ihluleka ukuvumelanisa futhi kube nemizamo emibili, cindezela ukuthi “qhubeka” ukuze uqedele ukwelashwa ngaphandle kwerimothi.



Isithombe 39. Ukuvumelanisa Irimothi Kuhlulekile

4.6. Ukuhlanza Isistimu

Ngaphambi kokuyihlanza qiniseka ukuthi isistimu icinyiwe futhi intambo kagesi ikhishiwe. Kunconywa ukuthi isistimu nezingxenye zayo zihlanzwe ngendlela elandelayo.

I-KXL System: Sebenzisa indwangu engenafayibha ematiswe nge-isopropyl alcohol ukuze usule isistimu. Ngenkathi uhlanza ingaphezulu ledivayisi, qiniseka ukuthi uketshezi lokuhlaza alumfimi lungene kudivayisi, ngoba lokhu kungalimaza idivayisi.

Irimothi: Sebenzisa indwangu engenafayibha ematiswe nge-isopropyl alcohol ukuhlanza irimothi.

Ukuze uhlanze imbobo yemisebe, bheka Isigaba 4.7.

UNGALOKOTHI ufake isistimu oketshezini noma uthele isistimu ngoketshezi.

Azikho izingxenye ze-KXL System ezenzelwe ukuthi zibulawe amagciwane u-opharetha.

 Qaphela	
1.	Cima isistimu futhi ususe intambo kagesi engoxini eyinhloko ngaphambi kwanoma iyiphi inqubo yokuhlaza.
2.	Iwindi lengilazi lembobo yomsebe akufanele nanini lithintwe ngezinto zokuhlaza ezinamandla.

4.7. Ukuhlanza Imbobo Yemisebe

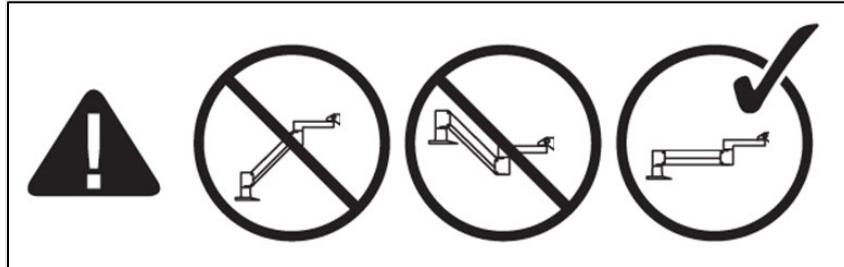
Hlola iwindi lengilazi lembobo yemisebe ngaphambi kokwelapha ukuze uqiniseke ukuthi alilimele futhi lihlazekile. Ungayisebenzisi uma lilimele.

Uma kudingeka lihlanzwe, sula ingilazi yembobo usebenzisa indwangu yokusula ilensi yekamera noma usebenzise umoya onomfutho ukuze ususe udoti embotsheni.

4.8. Ukulungisa Ingalo Enyakazayo

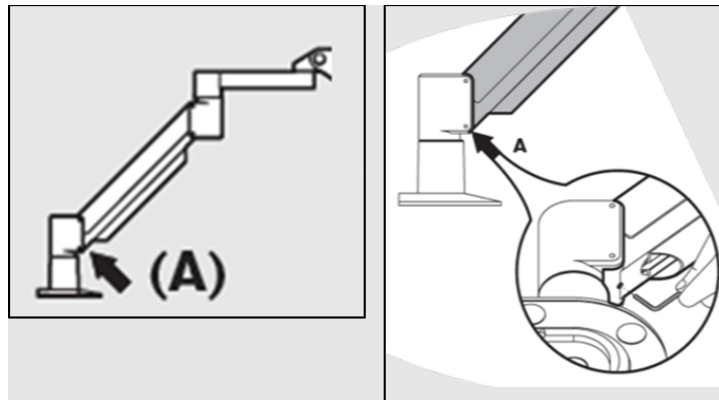
Uma ingalo enyakazayo ingabambi ikhanda le-optics liqonde linganyakazi, landela izinyathelo ezichazwe ngezansi ukuze usimamise ingalo enyakazayo.

Zungezisa ingalo uyenyuse uphinde uyehlise ngokuphelele bese ubeka ingalo ivundle, okuwukuthi, cishe ibe malungana nephansi legumbi.



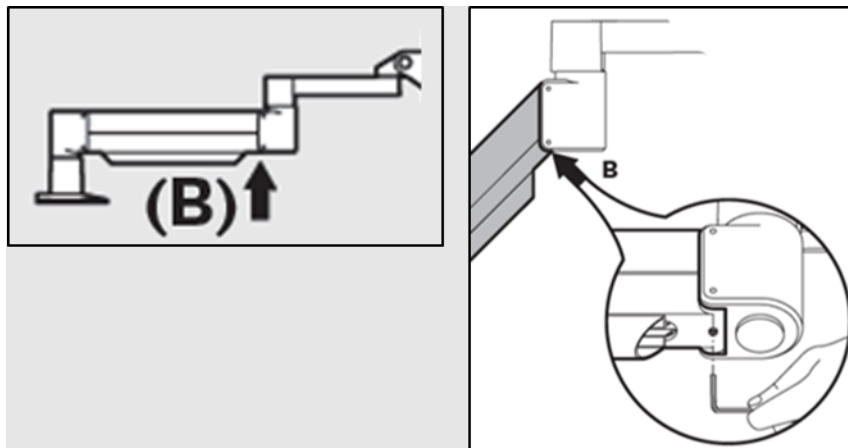
Isithombe 40. Beka Ingalo Ibe Malungana Nepansi Legumbi

Uma ingalo yehlela phansi, phakamisa ingalo ifinyelele phezulu lapho iphelela khona bese uqaqa Isipikili Sokusimamisa A ngokusonta isipikili okungenani uhhafu. Sebenzisa i-3/32 Allen Wrench ehlinzekiwe. Bheka Isithombe 41.



Isithombe 41. Qaqa Isipikili Sokusimamisa A

Beka ingalo ivundle. Khumula Isipikili Sokusimamisa B ngokusonta isipikili okungenani uhhafu. Sebenzisa i-3/32 Allen Wrench ehlinzekiwe. Bheka Isithombe 42.

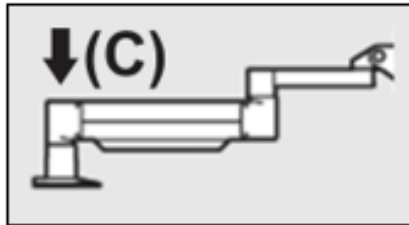


Isithombe 42. Qaqa Isipikili Sokusimamisa B

Gcina ingalo ivundlile ngokusekela isisindo uma kudingeka.

Usebenzisa i-7/32 Allen Wrench eza nesistimu, setha ukuqina kwengalo ngeSipikili Sokusimamisa C. Jikisela Isipikili C kwesokunxele kuze kube yilapho ingalo iqala khona ukunyakaza kancane iye phezulu. Kufanele kube nokubuya kancane uma ingalo ithintathintwa yehlinswa ngemva kokuyilungisa. Bheka Isithombe 43.

QAPHELA: Kungase kudingeke ukuyijikisa izikhathi eziyi-15-20. Uma ingalo isaqhubeka iwa futhi isipikili singasaphenduki ngokwengeziwe, xhumana nommeleli wesevisi wendawo wase-Glaukos.



Isithombe 43. Seta Ukuqina Kwengalo ngeSipikili Sokusimamisa C

Jikisa Isipikili Sokusimamisa C iziyingi ezimbili uye kwesokudla.

Qiniseka ukuthi ingalo kungaba ukuthi ayinyakazi noma ithi ukwenyukela phezulu.

Phakamisela ingalo phezulu futhi uqinise Isipikili Sokusimamisa A zize zithintane, bese uqinisa ungeqi ku- $\frac{1}{2}$ kuya ku- $\frac{3}{4}$. Bheka Isithombe 41.

Beka ingalo ivundle bese uqinisa Isipikili Sokusimamisa B zize zithintane, bese uqinisa ungeqi ku- $\frac{1}{2}$ kuya ku- $\frac{3}{4}$. Bheka Isithombe 42.

Jikelezisa ingalo uyenyuse uyehlize ngokuphelele ulokhu uyizungezisa ngokuphelele. Qiniseka ukuthi ayidonsekeli phezulu noma phansi. QAPHELA: Uma ingalo idonsekela phezulu isuka noma kuyiphi indawo, ibuyisele ivundle bese uqinisa Isipikili Sokusimamisa C ngo- $\frac{1}{4}$ ngesikhathi kuze kube yilapho ingasenyuki ngokwayo.

4.9. Ukuthutha Isistimu

I-KXL System yenziwe njengesistimu ethuthekayo endaweni eyihhovisi.

OKUBALULEKILE: Uma kudingeka ukuthutha noma ukuthumela isistimu, nganoma isiphi isizathu, xhumana nommeli wendawo we-Glaukos. Ukupakisha nokuthutha isistimu kufanele kwenziwe izisebenzi zase-Glaukos eziqeqeshiwe futhi ezigunyaziwe kuphela.

Ngaphambi kokususa isistimu kwelinye igumbi iye kwelinye, ikhanda kufanele libekwe eduze nesibambo senqola bese indololwane yaso ivele ngemuva. Bheka Isithombe 44 ukubona indlela yokuyibeka. Isistimu ingasunduzwa ngesibambo senqola kalula iphume emnyango.



Isithombe 44. Ukuhlela Isistimu Ukuze Ithuthwe Futhi Igcinwe

4.10. Ukugcina Isistimu

Gcina isistimu ngendlela obungenza ngayo uma uyithutha ngokwesigaba 4.9 ngokuvumelana nemibandela yonke okufanele uyilandele ngezinga lokuyigcina nomswakama njengoba kushiwo eSigabeni 7: Imibandela Ekhethekile.

Ungaqaqi noma iyiphi ingxenye yesistimu ngoba lokhu kungadala ukungaqondani kahle noma umonakalo.

CIMA zonke izingxenye futhi ucime iswishi kagesi. Khipha intambo kagesi engoxini yayo kagesi. Khipha amabhethri kurimothi exhunywe ngaphandle kwentambo uma uzoyigcina isikhathi esijana.

4.11. Isofthiwe

Uma kwenzeka isofthiwe yonakala noma ihluleka ukusebenza ngendlela efanele, shayela ummeleli wesevisi yendawo wase-Glaukos. Izibuyekezo zesofthiwe zizokwenziwa kuphela abamemeli besevisi base-Glaukos.

4.12. Izingcuphe Ezihambisana Nokulahla Imikhiqizo Kadoti

Uma ulahla imikhiqizo kadoti, landela yonke imithetho yendawo esebenzayo.

5. IZIGABA ZEMISHINI

5.1. Ngokwe-EN60601-1 Medical Device Electrical Standard

Ukuvikela ekushaqisweni ugesi

- Isigaba 1 (umthombo wangaphandle wamandla kagesi)

Izinga lesivikelo ekushaqisweni ugesi

- Akucacisiwe, umshini awukhishwanga nengxenye esetshenziwe
- Isivikelo sokungena kwezinto kusistimu: IP20 (Asikho isivikelo sokungenwa amanzi)
- Isivikelo esibukeziwe sokungena kwezinto kurimothi IP53

Indlela yokuhlanza amagciwane noma yokukhuculula

- Idivayisi engahlanzwa amagciwane

Izinga lesivikelo lokusebenzisa uma kukhona okungokheleka ngomlilo njengoketshezi lokubulala imizwa

- Asikho isivikelo

Sebenzisa imibandela

- Isevisi eqhubekayo

5.2. Ngokwe-FCC Ingxenye 15, i-EN55011 ne-EN60601-1-2

Isigaba B

5.3. Ngokwe-EN60825-1 Ukuphepha Kwemikhiqizo Ye-laser

Ama-laser okuqondisa ayimikhiqizo ye-Laser yeSigaba 1

5.4. Ngokwe-EN62471 Ukuphepha Kwezibani Ezisetshenziswa Emzimbeni Nezinhlelo Zezibani

IEC 62471:2006 Iqembu Lengcuphe 2

EN 62471:2008 Iqembu Lengcuphe 3

5.5. Ngokwe-Annex II.3 yeSiqondiso 93/42/EEC

Isigaba IIa

5.6. Izimfuneko Ze-EMC



I-KXL System idinga izinyathelo ezikhethekile zokuqapha mayelana nokuvumelana kwawo kwe-electromagnetic (EMC). Ukufakwa nokusetshenziswa kufanele kwenziwe ngokuvumelana nolwazi lwe-EMC oluhinzekwe kule manuwali. Imishini yezokuxhumana ye-RF ephathwayo neyeselula ingase iphazamise i-KXL System.

Umhlahlandlela nesimemezelo somenzi - ukukhishwa kwe-electromagnetic		
I-KXL System ihloselwe ukusetshenziswa endaweni ye-electromagnetic eshiwo ngezansi. Ikhasimende noma umsebenzisi we-KXL System kufanele aqiniseke ukuthi isetshenziswa endaweni enjalo.		
Ukuhlola ukukhishwa kwemisebe	Ukuthotshelwa Komthetho	Indawo ye-electromagnetic — umhlahlandlela
Ukuphazamiseka okwenziwe (Ukukhishwa kwemisebe okwenziwe) CISPR 11 EN55011	Iqembu 1	I-KXL System isebenzisa amandla e-RF ukwenza imisebenzi yayo yangaphakathi kuphela. Ngakho-ke, ukukhishwa kwemisebe ye-RF kuphansi kakhulu futhi cishe akunakudala ukuphazamiseka kwemishini yama-elektronikhi eseduze.
Ukuphazamiseka kwemisebe ye-electromagnetic (Ukukhishwa kwemisebe) CISPR 11 EN55011	Isigaba B	I-KXL System iyafaneleka ukusetshenziswa kuzo zonke izakhiwo kubandakanye ekhaya kanye nakulezo ezixhunywe ngokuqondile emandleni kagesi aphantsi aphakela izakhiwo ezisetshenziselwa ukuhlala. Isixwayiso: Ukukhishwa kwemisebe yalo mshini kuwenza ufanele ukusetshenziswa ezindaweni zezimboni nasezibhedlela (CISPR 11 isigaba A). Uma usetshenziswa endaweni yokuhlala (okudingeka i-CISPR 11 isigaba B ngenxa yayo) lo mshini ungase ungazivikeli ngokwanele izinsiza zezokuxhumana ezinamaza omsakazo. Kungase kudingeke ukuthi umsebenzisi athathe izinyathelo zokubonelela, njengokuthutha noma ukuhlela kabusha umshini.
Ukukhishwa kwamaza kwama-harmonic IEC 61000-3-2	Isigaba A	
Ukushintsha kwamandla kagesi, ukuguquguka/nokufiliza IEC 61000-3-3	Ithobela umthetho	

Umhlahlandlela nesimemezeliso somenzi - ukukhululwa ecaleni le-electromagnetic			
I-KXL System ihloselwe ukusetshenziswa endaweni ye-electromagnetic eshiwo ngezansi. Ikhasimende noma umsebenzisi we-KXL System kufanele aqiniseke ukuthi isetshenziswa endaweni enjalo.			
Ukuhlola ukukhululwa ecaleni	Izinga lokuhlola le-IEC 60601	Izinga lokuthotshelwa komthetho	Indawo ye-electromagnetic — umhlahlandlela
Ukukhishwa kwemisebe e-electrostatic (ESD) IEC 61000-4-2	+/- 8 kV ukuthinta +/- 15 kV umoya	+/- 8 kV ukuthinta +/- 15 kV umoya	Iphansi kufanele kube ukhuni, ukhonkolo, noma amathayili obumba. Uma iphansi lenziwe ngezinto zokwenziwa, umswakama ovamile kube okungenani ube ngu-30%.
Ukuphuma kukagesi ngamandla/ ukuqhuma IEC 61000-4-4	Amandla okuphinda 100Khz +/- 2 kV ezintanjeni zikagesi kanye no-+/- 1 kV wezintambo zokukhipha/ zokuphakela	+/- 2 kV ezintanjeni zokuphakela amandla Akungithinti Izintambo Eziphakelayo/Ezikhapha Amandla	Izinga lamandla ezintambo kufanele kube elendawo evamile yezentengiso noma yasesibhedlela.
Amandla eqile IEC 61000-4-5	+/- 1 kV izintambo kuya ezintanjeni +/- 2 kV izintambo kuya ku-earth	+/- 1 kV izintambo kuya ezintanjeni +/- 2 kV izintambo kuya ku-earth	Izinga lamandla ezintambo kufanele kube elendawo evamile yezentengiso noma yasesibhedlela.
Ukuncipha kwamandla kagesi, iziphazamiso ezimfushane, nokuguquguquka kwamandla kagesi ezintanjeni eziphakelayo IEC 61000-4-11	0 % UT (100 % ukuncipha ku-UT) komjikelezo ongu-0.5 0% UT (100% ukuncipha ku-UT) komjikelezo owo-1 70% UT (30% ukuncipha ku-UT) komjikelezo ongu-25/30 0% UT (100 % ukuncipha ku-UT) imizuzwana emi-5 Ku-0.5 esigabeni ngasinye se-engela 0-315 ehlukaniswe ngo-45	0 % UT (100 % ukuncipha ku-UT) komjikelezo ongu-0.5 0% UT (100% ukuncipha ku-UT) komjikelezo owo-1 70% UT (30% ukuncipha ku-UT) komjikelezo ongu-25/30 0% UT (100 % ukuncipha ku-UT) imizuzwana emi-5 Ku-0.5 esigabeni ngasinye se-engela 0-315 ehlukaniswe ngo-45	Izinga lamandla ezintambo kufanele kube elendawo evamile yezentengiso noma yasesibhedlela, Uma umsebenzisi we-KXL System efuna ukuqhubeka esebenza ngesikhathi sokuphazamiseka kwezintambo zikagesi, kunconywa ukuthi i-KXL System ithole ugesi endaweni yokuphakela engaphazamiseki noma ngebhethri.
Amandla kagesi (50/60 Hz) amandla kazibuthe IEC 61000-4-8	30 A/m	30 A/m	Amandla kazibuthe okuphakelwa kukagesi kufanele abe sezingeni lendawo evamile endaweni yezentengiso noma yasesibhedlela.
Amandla Kazibuthe Endaweni Eseduze IEC 61000-4-39	9KHz- 150KHz, 150KHz-26MHz	9KHz- 150KHz, 150KHz-26MHz	Amandla kazibuthe endaweni eseduze kufanele abe sezingeni lendawo evamile endaweni yezentengiso noma yasesibhedlela.
QAPHELA: I-UT amandla kagesi we-a.c. ngaphambi kokusetshenziswa kwezinga lokuhlola.			

Umhlahlandlela nesimemezelo somenzi - ukukhululwa ecaleni le-electromagnetic			
I-KXL System ihloselwe ukusetshenziswa endaweni ye-electromagnetic eshiwo ngezansi. Ikhasimende noma umsebenzisi we-KXL System kufanele aqiniseke ukuthi isetshenziswa endaweni enjalo.			
Ukuhlola ukukhululwa ecaleni	Izinga lokuhlola le-IEC 60601	Izinga lokuthotshelwa komthetho	Indawo ye-electromagnetic — umhlahlandlela
Ukuphazamiseka Okwenziwe okudalwe amaza e-RF (Ukuphazamiseka Okwenziwe) IEC61000-4-6	3 Vrms 150 kHz kuya ku-80 MHz kanye no-6Vrms wamabhendi e-ISM	3Vrms	Imishini yezokuxhumana ye-RF ephathekayo neyeselula kufanele ingasetshenziswa eduze nanoma iyiphi ingxenye ye-KXL System, kubandakanywe izintambo, uma kungelona ibanga lokuhlukaniswa elinconywayo elibalwe ngokwenqubo esebenza emandleni e-transmitter. Indawo yokuhlukanisa enconywayo. $d = 1,2\sqrt{P}$ 80 MHz kuya ku-800 MHz $d = 1,2\sqrt{P}$
Anandla E-electromagnetic Okukhishwa Kwemisebe ye-RF IEC 61000-4-3 Ibanga lokusondela emishini yokuxhumana ye-RF engaxhunyiwe ngezintambo (IEC 60601-1-2 lthebula 9)	3 V/m 80 MHz kuya ku-2.7 GHz Amandla aqondile ayi-15. Izinga lokukhululwa 9-28V/m	3V/m Amandla aqondile ayi-15. Izinga lokukhululwa 9-28V/m	$d = 1,2\sqrt{P}$ $d = 2,3\sqrt{P}$ 80 MHz kuya ku-2.7 GHz u-P umkhawulo wamandla akhishwayo e-transmitter ngama-watt (W) ngokuvumelana nomenzi we-transmitter kanti u-d yibanga lokuhlukaniswa elinconywayo ngamamitha (m). Amandla amaza ama-transmitter e-RF asendaweni eyodwa, anqunywa ngokwenhlolovo yendawo ye-electromagnetic ^a kufanele abe ngaphansi kwezinga lokuthotshelwa komthetho ezingeni ngalinye lamandla. ^b Kungase kube khona ukuphazamiseka endaweni esondelene nemishini enalolu phawu olulandelayo: 
INOTHI 1: Ku-80 MHz no-800 MHz, kusebenza izinga lamandla eliphezulu. INOTHI 2: Le mihlahlandlela ingase ingasebenzi kuzo zonke izimo. Ukuphehlwa kwe-electromagnetic kuthintwa ukumuncwa nokusakazwa yizakhiwo, izinto, nabantu.			
a. Amandla amaza avela kuma-transmitter asendaweni eyodwa, njengeziteshi zezingcingo zomsakazo (amaselula/ezingenazintambo) kanye no-ova beselula abasemhlabeni, amaza omsakazo afufusayo, ukusakaza ngomsakazo nge-AM ne-FM kanye nokusakaza kwe-TV akunakubikezelwa ngokunembile ngokuqagela. Ukuze kuhlaziye indawo ye-electromagnetic ngenxa yama-transmitter e-RF asendaweni eyodwa, kufanele kucatshangelwe inhlovo yesikhungo se-electromagnetic. Uma amandla amaza endaweni i-KXL System esetshenziswa kuyo engaphezu kwezinga le-RF elisebenzayo elishiwo ngenhla, i-KXL System kufanele iqashwe ukuze kuqinisekwe ukuthi isebenza kahle. Uma kubonwa ukungasebenzi kahle, kungase kudingeke ezinye izinyathelo, njengokucupha kabusha noma ukuyisa i-KXL System kwenye indawo. b. Ngaphezu kwezinga lamandla elingu-150 kHz kuya ku-80 MHz, amandla amaza kufanele abe ngaphansi kuka-3 V/m.			

Amabanga okuhlukanisa anconywayo phakathi kwemishini yezokuxhumana ye-RF ephathwayo neyeselula kanye ne-KXL System			
I-KXL System ihloselwe ukusetshenziswa endaweni ye-electromagnetic lapho ukuphazamiseka kwemisebe ye-RF kulawulwa khona. Ikhasimende noma umsebenzisi we-KXL System angasiza ukuvimbela ukuphazamisa kwe-electromagnetic ngokulondoloza ibanga eliyisisekelo phakathi kwemishini yezokuxhumana ye-RF ephathwayo neyeselula (ama-transmitter) kanye ne-KXL System njengoba kunconywe ngezansi, ngokuvumelana namandla awumkhawulo akhishwa yile mishini yezokuxhumana.			
Amandla awumkhawulo abaliwe akhishwa yi-transmitter (W)	Ibanga lokuhlukanisa ngokuvumelana namandla e-transmitter m		
	150 kHz kuya ku-80 MHz $d = 1.2\sqrt{P}$	80 MHz kuya ku-800 MHz $d = 1.2\sqrt{P}$	800 MHz kuya ku-2.7 GHz $d = 2.3\sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23
Kuma-transmitter okulinganiswe ukuthi akhipha amandla awumkhawulo angabalwanga ngenhla, ibanga d lokuhlukanisa elinconywayo ngamamitha (m) lingalinganiselwa kusetshenziswa uhlelo olusebenza emandleni e-transmitter, lapho u-P esho amandla awumkhawulo akhishwayo e-transmitter ngama-watt (W) ngokuvumelana nomenzi we-transmitter. INOTHI 1: Ku-80 MHz no-800 MHz, kusebenza izinga lokuhlukanisa lamandla eliphezulu. INOTHI 2: Le mihlahlandlela ingase ingasebenzi kuzo zonke izimo. Ukuphehlwa kwe-electromagnetic kuthintwa ukumuncwa nokusakazwa yizakhiwo, izinto, nabantu.			



I-KXL System iqukethe umsebenzi we-RFID edlulisa futhi yamukele amaza angu-13.56 MHz. Lo msebenzi ungaphazanyiswa omunye umshini, ngisho noma lowo mshini uthobela izimfuneko ze-CISPR zokukhishwa kwamaza.

I-KXL System iqukethe ama-transmitter e-RF alandelayo: I-RFID Reader	
• 13.56MHz Reader/Writer • Integral Antenna: Maximum 4" Read Range • Amandla awumkhawulo akhishwayo angu-200mW • Ivumelana: ISO18000-3, ISO15693	

Ukukhishwa kwemisebe okuphakeme kwemishini engenhla kubalwe ngezansi:

Okuyisisekelo	Amandla (MHz)	Izinga (dB μ V/m) ku-30 m	Umkhawulo (dB μ V/m) ku-30 m	Umkhawulo (μ V/m) ku-30 m	Iqophelo (dB)
Isigaba 15.225(a)	13.56 (umkhawulo ophezulu)	29.8	84	15,848	-54.2

Okunye	Amandla (MHz)	Izinga (dB μ V/m)	Umkhawulo (dB μ V/m)	Iqophelo (dB)
Ama-harmonic	27.12 (umkhawulo ophezulu)	-5.2	29.5	-34.7
Ewumgunyathi	200.6 (umkhawulo ophezulu)	34.5	40.0	-5.5
Okwenziwe	0.199 (isilinganiso)	38.8	54.6	-15.8

Irimothi Yokuqala Engaxhunyiwe Ngentambo, P/N

- FCC ID SXJ87027-TX
- Izinga Lamandla 2405MHZ kuya ku-2475MHz
- Ukukhishwa Kwemisebe Kuvumelana ne-47 CFR Ingxenye 15

Irimothi Ebukeziwe Engaxhunyiwe Ngentambo

- FCC ID 2AVGK-KXLTX
- Izinga Lamandla 2402MHz kuya ku-2480MHz
- Ukukhishwa Kwemisebe Kuvumelana ne-CFR Ingxenye 15

6. IZIMPAWU/IZIFUSHANISO

Izimpawu ezilandelayo zingase zitholakale ku-KXL System, kumalebula noma ephaketheni.

Uphawu	Incazelo	Indawo
	I-alternating Current	ilebula lesistimu
	Bheka imiyalelo yokusetshenziswa	ilebula lesistimu
	I-earth evikelwe; i-ground evikelwe	isistimu
	Ivuliwe	isistimu
	Icinyiwe	isistimu
	Ilindile	isistimu
	CE Mark	ilebula lesistimu
	Qaphela: Emshini eduze kokubekiwe	ilebula lesistimu
	Ingozi Yokukhanya kwe-UV (Bheka isigaba 1.12 ukuze uthole izexwayiso)	kusistimu
	Gcina kude nemvula	ibhokisi
	Kuyaphuka	ibhokisi
	Makubheke phezulu	ibhokisi
	Ungapakishi	ibhokisi

Uphawu	Incazelo	Indawo
	Umkhawulo womswakama	ilebula lesistimu
	Umkhawulo wezinga lokushisa	ilebula lesistimu
	Umkhawulo womfutho emkhathini	ilebula lesistimu
	I-magnetic Resonance Ayiphephile	ilebula lesistimu
	Ukukhishwa kwemisebe ephansi ye-electromagnetic	ilebula lesistimu
	Idivayisi yezokwelapha	ilebula lesistimu
	Uphawu lwe-WEEE	ilebula lesistimu
	Inombolo yekhathalogi	ilebula lesistimu
	Inombolo yesiriyali	ilebula lesistimu
	Umenzi	ilebula lesistimu
	Usuku Lokwenziwa	ilebula lesistimu
	Bheka Imanuwali Yemiyalelo/incwajana kuyisibopho	ilebula lesistimu
	Ummeleli ogunyaziwe e-European Community	ilebula lesistimu
	Isihlonzi Sedivayisi Esiyingqayizivele	ilebula lesistimu
	Inani: Kushiwo inani lamadivayisi aqukethwe yiphakethe elithile	ilebula lebhokisi

Izifushaniso			
°C	degree Celsius	min	umzuzu
A	ampere	mW/cm ²	milliwatt per square centimeter
CX	corneal cross-linking	nm	nanometer
EMC	ukuhambisana kwe-electromagnetic	OD	iso lesokudla
FW	firmware	OS	iso lesokunxele
Hz	hertz	sec	umzuzwana
IP	Isivikelo Sezinto Ezingenayo	UI	isikrini
J/cm ²	Joules per square centimeter	UV	Ukukhanya kwe-ultraviolet
kg	amakhilogremu	UVA	Ultraviolet A
LED	i-diode ekhipha ukukhanya	V	Volt
mbar	millibar		

7. IMIBANDELA EKHETHEKILE

7.1. Imibandela Ekhethekile Yesistimu

Imibandela Ekhethekile	Incazelo
Ezikagesi	Amandla ezintambo 100–240 volts AC Ugesi 2A–1A I-single Phase RMS, 50/60 Hz Irimothi amabhethri ama-2 e-AA/ Irimothi Evamile 2x AAA
Uhlu lwezintambo Nezisetshenziswa	Irimothi Engaxhunyiwe Ngentambo Intambo kagesi we-AC yasesibhedlela ka-Grade AC (Iyakhiyeka/Iyakhishwa)
Ukuphakelwa Kwamandla	UV-A Umthombo Wokukhanya kwe-LED Amandla e-UV: 3–45 mW/cm ² +/- 10% Umfutho we-UV: 1–10.7 J/cm ² I-wavelength: 365 nm +/- 8 nm
I-laser Yokuqondisa	I-laser yeSigaba 1 Amandla: ≤ 390μW I-wavelength: 650nm
Izisetshenziswa Zangaphandle	USB 2.0
Ubukhulu Obungokoqobo Besistimu Eyisisekelo	Ubude: 60 in (152 cm) Ububanzi: 58 in (147 cm) Ukuphakama: 118 in (300 cm)
Ubukhulu Obuwumkhawulo Uma Ingalo Inwetshwe Ngokuphelele	Ubude: 129 in (328 cm) Ububanzi: 110 in (279 cm) Ukuphakama: 150 in (381 cm)
Isisindo	NW 48 kg Isisindo Sedivayisi (Uma Isebenza) GW 89 kg Isisindo Sokuthunyelwa (Ebhokisini)
Isikhathi Sebhetthri Lerimothi (ngaphansi kwezimo ezivamile zokusebenza)	18 amahora
I-ID Yerimothi ne-Dongle kanye Namandla Okusebenza	FCC ID: 2AVGK-KXLTX (Irimothi) FCC ID: SXJ87027-TX (Irimothi Evamile) 2.405-2.475 GHz.
Isivikelo Sokungena Kwezinto Kurimothi (izinto eziqinile ezingaphansi kuka-12.5 mm futhi asikho isivikelo samanzi)	IP53 (Irimothi) IP20 (Irimothi Evamile)
Ukusebenza Endaweni Nezimo Zokuyigcina	Isistimu isebenza futhi ingagcinwa ngaphansi kwezimo ezilandelayo zomfutho womkhathi (hhayi umswakama)
Izinga lokushisa	+15 to +30 °C
Umswakama ovamile	20% to 80%, akunamhwamuko
Umfutho emkhathini	810 kuya ku-1050 mbar
Izimo Zezokuthutha	Isistimu imelana nezimo ezilandelayo zokuthutha ngaphandle kokonakala noma ukungasebenzi kahle.
Izinga lokushisa	-15 to +60 °C
Umswakama ovamile	10% to 80% akunamhwamuko
Umfutho emkhathini	750 kuya ku-1060 mbar

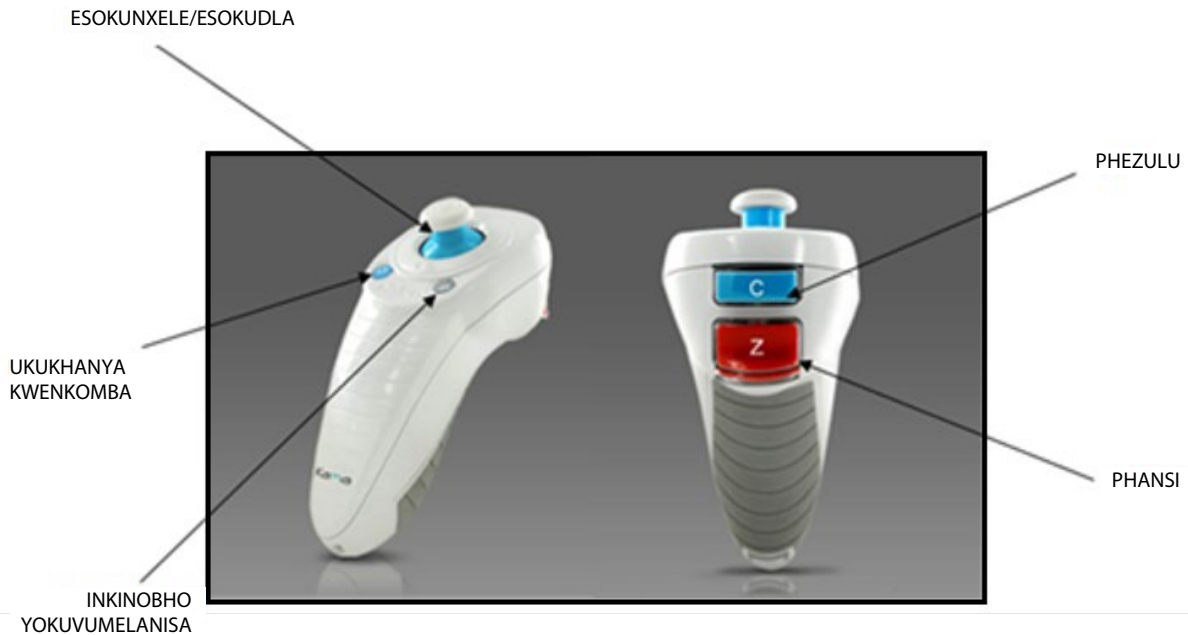
7.2. Izilinganiso Zokwelashwa

Izilinganiso Zokwelashwa					
Uhlobo Lokwelashwa		Lasik Xtra®	I-CXL Ye-Epi-off Esheshisiwe	I-CXL Ye-Epi-off Evamile	Trans-Epithelial
Uketshezi		VibeX® Xtra	VibeX® Rapid	VibeX® Rapid	I-ParaCel Ingxenywe 1, I-ParaCel Ingxenywe 2
Isikhathi Sokuqala/ Isikhathi Sokucwilisa	Okuvamile	1 umzuzu 30 imizuzwana	10 imizuzu	10 imizuzu	4 imizuzu (Ingxenywe 1) 6 imizuzu (Ingxenywe 2)
	Izinga	15 imizuzwana– 30 imizuzu	60 imizuzwana– 30 imizuzu	60 imizuzwana– 30 imizuzu	60 imizuzwana– 4 imizuzu (Ingxenywe 1) 60 imizuzwana– 30 imizuzu (Ingxenywe 2)
Ukukhishwa Kwemisebe ye-UV	Okuvamile	30 mW/cm ²	30 mW/cm ²	3 mW/cm ²	45 mW/cm ²
	Izinga	*3 mW/cm ² – 45 mW/cm ²	*3 mW/cm ² – 45 mW/cm ²	3 mW/cm ²	*3 mW/cm ² – 45 mW/cm ²
Umthamo we-UV Ophelele	Okuvamile	2.7 J/cm ²	7.2 J/cm ²	5.4 J/cm ²	10 J/cm ²
	Izinga**	**1 J/cm ² – 4.1 J/cm ²	**1 J/cm ² – 7.2 J/cm ²	5.4 J/cm ²	**1 J/cm ² – 10 J/cm ²
Ukukhishwa kwe-UV	Okuvamile	CW	Okwe-pulsed	CW	Okwe-pulsed
	Izinga	CW ne-Pulsed	CW ne-Pulsed	CW	CW ne-Pulsed
Ubude Besikhathi Se-Pulsed	Okuvamile	Akungithinti	1 umzuzwana ukuyivula, 1 umzuzwana ukuyivala	Akungithinti	1 umzuzwana ukuyivula, 1 umzuzwana ukuyivala
	Izinga	1 umzuzwana ukuyivula/ukuyivala– 4 imizuzwana ukuyivula/ukuyivala	1 umzuzwana ukuyivula/ukuyivala– 4 imizuzwana ukuyivula/ukuyivala	Akungithinti	1 umzuzwana ukuyivula/ukuyivala– 4 imizuzwana ukuyivula/ukuyivala
AMANOTH: * Ukwelashwa kwe-CW 3mW/cm ² yisisekelo; ukwelashwa kwe-Pulsed 6mW/cm ² yisisekelo. ** Umsebenzisi angase akhethe Amandla e-UV uwenyuse ngezikhawu zika-0.1 J/cm ² .					

8. ISITHASISELO 1

8.1. Irimothi Evamile

Kumasistimu e-KXL akhishwa ngokudlule, kwahlinzekwa ngerimothi evamile eboniswa ngezansi. Uma usasebenzisa irimothi evamile, sicela ubheke imiyalelo kulesi sithasiselo ukubona ulwazi olubalulekile lokuyisebenzisa nokuxazulula ezinye izinkinga.



Isithombe 45. Irimothi Evamile–Amazwibela

8.2. Ukuvumelanisa Irimothi Evamile

QAPHELA: Uma usebenzisa irimothi, kudingeka ukuvumelanisa enqubweni ngayinye.

Ngemva kokuthi amasethingi esekhethiwe, cindezela ukuthi qinisekisa esikrinini sokuqinisekisa ukwelashwa. Isistimu izokunikeza imizuzwana eyi-15 ukuze uvumelanise nerimothi.

Cindezela inkinobho yokuvumelanisa ebhalwe u-“S” kurimothi ukuze uvumelanise irimothi phakathi nesikhathi osinikiwe, njengoba kuboniswe esithombeni esingezansi. Isistimu ye-KXL izokhala njalo emizuzwaneni emi-2 ngesikhathi sokuvumelanisa.



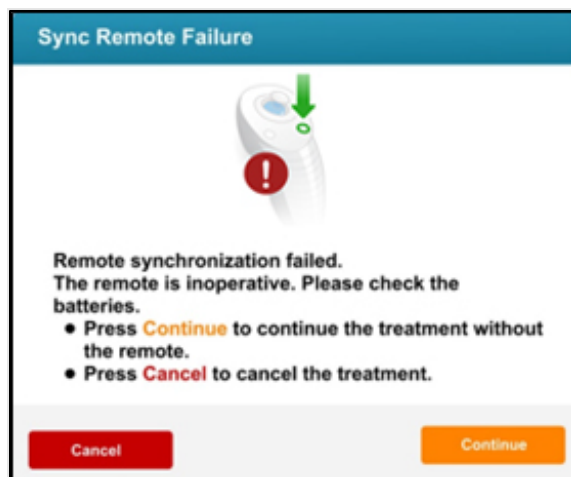
Isithombe 46. Irimothi Evamile–Isikrini Sokuvumelanisa Irimothi

Uma inkinobho yokuvumelanisa kurimothi ingacindezelwe phakathi nemizuzwana eyi-15, kuzovela isikrini esibonisa ukuthi isikhathi sokuvumelanisa irimothi siphelile. Cindezela u-OK ukuze uzame futhi. Uma inkinga ivela futhi, bheka Ukuxazulula Izinkinga Zerimothi Evamile ekhasini elilandelayo ukubona izinkinga zebhethri okungenzeka zikhona.



Isithombe 47. Irimothi Evamile–Ukuphela Kwesikhathi Sokuvumelanisa

Uma irimothi ihluleka ngemva kwemizamo eminingana ukuvumelanisa noma iyeka ukusebenza nganoma isiphi isikhathi, ukwelapha kusengaqhubeke ngaphandle kwerimothi. Cindezela ukuthi “Qhubeka” ukuze uqhubeke nokwelapha ngaphandle kwerimothi.



Isithombe 48. Irimothi Evamile–Ukuhluleka Ukuvumelanisa

8.3. Ukuxazulula Izinkinga Zerimothi Evamile

Irimothi evamile inokukhanya kwenkomba okuveza isimo sayo njengoba kuchazwe kabanzi ethebuleni elingezansi.

Izinkomba Zerimothi Evamile	
Isimo Sokukhanya Kwenkomba	Incazelo
Ivuliwe	Ivunyelaniswe ngokuqondile nedivayisi
Ifiliza kanye ngomzuzwana imizuzwana eyi-10	Ukunqamula ukuvumelanisa (ngemva kwenqubo)
Ifiliza njalo, kabili ngomzuzwana	Shintsha amabhethri ngokushesha (2 AAA)

8.4. Ukushintsha Amabhethri Erimothi Evamile

Irimothi evamile inamabhethri ashintshwayo. Ukuze ushintshe amabhethri kurimothi, phakamisa ithebhu engemuva kwerimothi ukuze uvule indawo yamabhethri. Shintsha amabhethri. Faka iphaneli bese uyicindezela ithi khaxa endaweni.