

# **Certificate of Need Application**

# North Kansas City Hospital Linear Accelerator Replacement Project #6167 HT

# Submitted to the Missouri Health Facilities Review Committee November 15, 2024

Submitted By:
Jennifer Kozinn

Vice President & General Counsel
North Kansas City Hospital
2800 Clay Edwards Drive
North Kansas City, MO 64116
816-691-2038
jennifer.kozinn@nkch.org



# Certificate of Need Program

# **EQUIPMENT REPLACEMENT APPLICATION**

Applicant's Completeness Checklist and Table of Contents

Project Name:_	Project No:
Project Descrip	tion:
Done Page N/A	Description
Divider I.	Application Summary:
	1. Applicant Identification and Certification (Form MO 580-1861)
	2. Representative Registration (From MO 580-1869)
	3. Proposed Project Budget (Form MO 580-1863) and detail sheet with documentation of costs.
Divider II.	Proposal Description:
	1. Provide a complete detailed project description, CON project number of the existing equipment (if prev. CO) approved), and include the type/brand of both the existing equipment and the replacement equipment.
	2. Provide a listing with itemized costs of the medical equipment to be acquired and bid quotes.
	3. Provide a timeline of events for the project, from CON issuance through project completion.
Divider III.	Service Specific Criteria and Standards:
	1. Describe the financial rationale for the proposed replacement equipment.
	2. Document if the existing equipment has exceeded its useful life.
	3. Describe the effect the replacement unit would have on quality of care.
	4. Document if the existing equipment is in constant need of repair.
	5. Document if the lease on the current unit has expired.
	6. Describe the technological advances provided by the new unit.
	7. Describe how patient satisfaction would be improved.
	8. Describe how patient outcomes would be improved.
	9. Describe what impact the new unit would have on utilization.
	10. Describe any new capabilities that the new unit would provide.
	11. By what percent will this replacement increase patient charges.
(If replacen	nent equipment was not previously approved, also complete Divider IV below.)
Divider IV.	Financial Feasibility Review Criteria and Standards:
	<ol> <li>Document that sufficient financing is available by providing a letter from a financial institution or an auditor's statement indicating that sufficient funds are available.</li> </ol>
	2. Provide Service-Specific Revenues and Expenses (Form MO 580-1865) projected through three (3) <b>FULL</b> years beyond project completion.
	3. Document how patient charges are derived.
	4. Document responsiveness to the needs of the medically indigent.

# **Divider I.** Application Summary:

# 1. Application Identification and Certification (Form MO 580-1861)

See attached form MO 580-1861.

The project address for this replacement project is 2750 Clay Edwards Drive, North Kansas City, MO 64116, which is a Medical Office Building on the North Kansas City Hospital campus that is connected to the main hospital via tunnel.

North Kansas City Hospital is a standalone hospital located due north of downtown Kansas City in the City of North Kansas City, Missouri. North Kansas City Hospital was organized and established pursuant to Sections 96.150 – 96.229 of the Revised Statutes of Missouri. Because it was created by state law, North Kansas City Hospital does not have an entry in the Missouri Secretary of State database. North Kansas City Hospital's hospital license is attached.

North Kansas City Hospital's service area is Clay County, Missouri and Platte County, Missouri.

# 2. Representative Registration (Form MO 580-1869)

See attached form MO 580-1869 for Jennifer Kozinn.

# 3. Proposed Project Budget (Form MO 580-1863) and detail sheet with documentation of costs

See attached form MO 580-1863.

A Proposed Project Budget detail sheet with documentation of costs is also attached.



# Certificate of Need Program

# APPLICANT IDENTIFICATION AND CERTIFICATION

The information provided must match the	Letter of Int	<b>ent</b> for this project, withou	ıt exception.		
1. Project Location (Attach addition	al pages as neces	ssary to identify multiple project s	ites.)		
Title of Proposed Project North Kansas City Hospital Linear Accele	erator Replace	ement	Project Number 6167 HT		
Project Address (Street/City/State/Zip Code)			County		
2750 Clay Edwards Drive, North Kansas	City, MO 64	116	Clay		
2. Applicant Identification (In)	formation must ag	ree with previously submitted Le	tter of Intent.)		
List All Owner(s): (List corporate entity	y.)	Address (Street/City/State	/Zip Code)	Telephone Number	
Board of Trustees of North Kansas City Hospital		2800 Clay Edwards Drive, North	th Kansas City, MO 64116	816-691-2020	
(List entity to be List All Operator(s): licensed or certif		ress (Street/City/State/Zip C	Code) Teleph	one Number	
North Kansas City Hospital		2800 Clay Edwards Drive, Nort		816-691-2020	
			-,,		
3. Ownership (Check applicable category.	)				
☐ Nonprofit Corporation ☐	Individua	ıl City	☐ Distric		
☐ Partnership	Corporati	ion 🗌 County		.S.Mo. Sections 6.150-96.229	
4. Certification					
	. 1 1 1 1	1 1 1			
In submitting this project application	i, the applica	int understands that:			
(A) The review will be made as	s to the comr	munity need for the prop	osed beds or equipment	in this	
application; (B) In determining community	ineed the M	lissouri Health Facilities	Review Committee (Com	mittee) will	
consider all similar beds o			review committee (com	initiee, wiii	
(C) The issuance of a Certification	ate of Need (C	CON) by the Committee of	lepends on conformance	with its Rules	
and CON statute; (D) A CON shall be subject to	forfeiture for	failure to incur an expe	enditure on any approved	project six (6)	
months after the date of is					
(6) months:	1.4.41.00	J. D		1 1	
<ul><li>(E) Notification will be provide</li><li>(F) A CON, if issued, may not</li></ul>					
Committee.		,, · · · · · · · · · · ·	1		
We certify the information and date i	n this annlic	ation as accurate to the	hest of our knowledge an	d belief by our	
representative's signature below:	п ша аррпе	ation as accurate to the	best of our knowledge an	d belief by our	
5. Authorized Contact Person	(Attach a Contac	ct Person Correction Form if differ	ent from the Letter of Intent.)		
Name of Contact Person			Title		
Jennifer Kozinn	Don Manahan		Vice President & General Couns  E-mail Address	el	
Telephone Number 816-691-2038	Fax Number 816-346-7020		jennifer.kozinn@nkch.org		
Signature of Contact Person			Date of Signature		
Jumy Akoni			11/15/2024		
MO 580-1861 (03/13)					

# HOSPITAL LICENSE

# MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES

**North Kansas City Hospital** 

# **North Kansas City Hospital**

2800 Clay Edwards Drive North Kansas City MO 64116

IS GRANTED THIS LICENSE PURSUANT TO SECTION 197.040, RSMo TO OPERATE AS A General Acute Care Hospital

Issue Date: June 1, 2024

Liberah Some

Bureau Administrator Bureau of Hospital Standards

LICENSE NO. 166-66 Total Beds Licensed: 451



DHSS Complaint Number: 1-800-392-0210

Expiration Date: May 31, 2025



# Certificate of Need Program

# REPRESENTATIVE REGISTRATION

(A registration form must be completed for <b>eac</b>	<b>h</b> proje	ct pres	sented.)
Project Name North Kansas City Hospital Linear Accelerator Replacement	1	Number 6167 F	iT
(Please type or print legibly.)	)	***************************************	
Name of Representative	Т	itle	
Jennifer Kozinn, JD	,	Vice P	resident & General Counsel
Firm/Corporation/Association of Representative (may be different from below, e.g., law firm, consultant, other)			Telephone Number
North Kansas City Hospital			816-691-2038
Address (Street/City/State/Zip Code)			
2800 Clay Edwards Drive, North Kansas City, MO 64116			
Who's interests are being represented? (If more than one, submit a separate Representative Registration Form )	for eac	:h.)	
Name of Individual/Agency/Corporation/Organization being Represented			Telephone Number
North Kansas City Hospital			816-691-2038
Address (Street/City/State/Zip Code)			
2800 Clay Edwards Drive, North Kansas City, MO 64116			
Check one. Do you:	elation	ship t	to Project:
✓ Support		None	e
$\square$ Oppose	<b>✓</b>	Emp	oloyee
☐ Neutral	<b>✓</b>	Lega	l Counsel
		Cons	sultant
	<b>7</b>	Lobb	pyist
Other Information:		Othe	er (explain):
I attest that to the best of my belief and knowledge the testime me is truthful, represents factual information, and is in comp which says: Any person who is paid either as part of his norm support or oppose any project before the health facilities review lobbyist pursuant to chapter 105 RSMo, and shall also register facilities review committee for every project in which such person whether such person supports or opposes the named project. If the names and addresses of any person, firm, corporation or as registering represents in relation to the named project. Any per subsection shall be subject to the penalties specified in §105.47	liance al emp comm with ton has he reg ssocial	with soloymentitees the standard in the standard in the standard in the standard in the soloyment is the standard in the soloyment is the soloyment in the soloyment in the soloyment in the soloyment is the soloyment in the soloyment in the soloyment is the soloyment in the soloyment in the soloyment is the soloyment in the soloyment in the soloyment is the soloyment in the soloyment in the soloyment is the soloyment in the soloyment in the soloyment is the soloyment in the soloyment in the soloyment is the soloyment in the solo	§197.326.1 RSMo ent or as a lobbyist to shall register as a uff of the health terest and indicate ion shall also include that the person g the provisions of this
Original Signature			Date 11/15/2024
MO 580-1869 (11/01)  MO 580-1869 (11/01)			

#6167 HT Application Page 6 of 48



# Certificate of Need Program

# PROPOSED PROJECT BUDGET

<u>Description</u>	<u>Dollars</u>
COSTS:*	(Fill in every line, even if the amount is "\$0".)
1. New Construction Costs ***	
2. Renovation Costs ***	
3. Subtotal Construction Costs (#1	olus #2)
4. Architectural/Engineering Fees	
5. Other Equipment (not in construct	ion contract)
6. Major Medical Equipment	
7. Land Acquisition Costs ***	
8. Consultants' Fees/Legal Fees ***	
9. Interest During Construction (net o	of interest earned) ***
10. Other Costs ***	
11. Subtotal Non-Construction Costs	(sum of #4 through #10
12. Total Project Development Costs	(#3 plus #11) **
FINANCING:	
13. Unrestricted Funds	
14. Bonds	
15. Loans	
16. Other Methods (specify)	
17. Total Project Financing (sum of #	13 through #16) **
18. New Construction Total Square Foo	otage
19. New Construction Costs Per Square	e Foot *****
20. Renovated Space Total Square Foot	
21. Renovated Space Costs Per Square	Foot *****

- \* Attach additional page(s) detailing how each line item was determined, including all methods and assumptions used. Provide documentation of all major costs.
- \*\* These amounts should be the same.
- \*\*\* Capitalizable items to be recognized as capital expenditures after project completion.
- \*\*\*\* Include as Other Costs the following: other costs of financing; the value of existing lands, buildings and equipment not previously used for health care services, such as a renovated house converted to residential care, determined by original cost, fair market value, or appraised value; or the fair market value of any leased equipment or building, or the cost of beds to be purchased.
- \*\*\*\*\* Divide new construction costs by total new construction square footage.
- \*\*\*\*\*\* Divide renovation costs by total renovation square footage.

# Proposed Project Budget detail sheet with documentation of costs.

# Renovation Costs: \$368,000

Renovation costs listed reflect construction expenses that may include shielding, installation, rigging, and electric/plumbing/HVAC/mechanics specific to the equipment. The renovation cost budget is developed by North Kansas City Hospital's Vice President of Facilities based on his design phase work and utilizing estimated costs based on prior contractor projects for cost per square foot, time & materials. The Budget Estimate Sheet developed by the Vice President of Facilities is attached.

# Major Medical Equipment Costs: \$3,794,491

The quote for the Major Medical Equipment costs is attached behind Divider II.



Hospital				Budge	t Estimate S	Sheet
Project Name:	Medi	cal Plaza North	inea	r Accelerator		
Project Number:						
Location:	Modi	ical Plaza North	014/0	r Lovol		
	Medical Plaza North Lower Level					
Scope:	Insta	ll a Varian Linea	Acc	elerator		
Square Footage:		1133	SF			
Estimator:	Nic Ri	esenberg				
Project Duration:	9 moi					
Requested By:	Rob S	chlicht				
Date:	10/10	-				
100 Construction		Cost		Cost/SF	%	Remarks
101 Construction  Mechanical	\$	83,000	\$	73.26		Assumed regular working hours, work to be released within 30 days of estimate date.
Electrical	\$	36,000	\$	31.77		
Shielding	\$	117,000	\$	103.27		
Structural	\$	60,000	\$	52.96		
Rigging	\$	72,000	\$	63.55		
Roof inspection (before / after)			\$	-		
Infection control			\$	-		
Demolition			\$	-		
HVAC Fire protection			\$	-		
102 Infrastructure			\$	-	0.0%	
103 Environmental			\$	-	0.075	
Asbestos Abatement			\$	-		
Lead Abatement			\$	-		
Mold Abatement			\$	-		
104 In House Labor	_		\$	-		
105 In House Material	\$	-	\$	-		
106 Direct Contract - Subcontractor 107 Dumpsters	\$	-	\$	-		
Construction Subtotal	\$	368,000	\$	324.80	100%	
200 Professional Services		Cost		Cost/SF	%	Remarks
201 Planning	\$	-	\$	-		
202 Design			\$	-		
203 Interior Design Fees	\$	-	\$	-		
204 Engineering Fees	\$	-	\$	-		
205 Structural Engineering Fees 206 Consulting Fees (Firestopping)	\$	-	\$	-		
207 Commissioning	\$	-	\$	-		
207 COMMISSIONING	\$	-	\$	-		
	\$	-	\$	-		
208 Printing	\$	-	\$	-		
Professional Services Subtotal	Ċ	-	\$		0%	
Projessional Services Subtotal	Ą	-	Ą	-	0/6	
300 Owner Direct Costs		Cost		Cost/SF		Remarks
301 Furniture & Furnishings	\$	-	\$	-		
302 Artwork	\$	-	\$	-		
303 Signage			\$	-		
304 Equipment	\$	-	\$	-		
305 Security Systems	\$	-	\$	-		
306 IT			\$	-		
307 Telecommunications	\$	-				
	\$	-	\$	-		
308 Housekeeping			\$	-		
308 Housekeeping 309 Maintenance & Key Control	\$	-	\$ \$ \$	-		
308 Housekeeping 309 Maintenance & Key Control 310 Moving & Storage	\$	-	\$ \$ \$ \$	-		
308 Housekeeping 309 Maintenance & Key Control 310 Moving & Storage 311 Fees/Permits	\$	-	\$ \$ \$ \$	- - -	1%	
308 Housekeeping 309 Maintenance & Key Control 310 Moving & Storage 311 Fees/Permits 312 Other	\$ \$	-	\$ \$ \$ \$ \$	-	1%	
308 Housekeeping 309 Maintenance & Key Control 310 Moving & Storage 311 Fees/Permits	\$ \$	-	\$ \$ \$ \$	- - -	1%	
308 Housekeeping 309 Maintenance & Key Control 310 Moving & Storage 311 Fees/Permits 312 Other  Owner Direct Subtotal	\$ \$	-	\$ \$ \$ \$ \$			
308 Housekeeping 309 Maintenance & Key Control 310 Moving & Storage 311 Fees/Permits 312 Other  Owner Direct Subtotal 400 Project Contingency	\$ \$	-	\$ \$ \$ \$ \$	- - - - Cost/SF	0%	
308 Housekeeping 309 Maintenance & Key Control 310 Moving & Storage 311 Fees/Permits 312 Other  Owner Direct Subtotal 400 Project Contingency Project Contingency	\$ \$ \$	Cost	\$ \$ \$ \$ \$	Cost/SF	0%	
308 Housekeeping 309 Maintenance & Key Control 310 Moving & Storage 311 Fees/Permits 312 Other  Owner Direct Subtotal 400 Project Contingency	\$ \$	-	\$ \$ \$ \$ \$	- - - - Cost/SF	0%	
308 Housekeeping 309 Maintenance & Key Control 310 Moving & Storage 311 Fees/Permits 312 Other  Owner Direct Subtotal 400 Project Contingency Project Contingency	\$ \$ \$ \$	Cost	\$ \$ \$ \$ \$	Cost/SF	0%	
308 Housekeeping 309 Maintenance & Key Control 310 Moving & Storage 311 Fees/Permits 312 Other  Owner Direct Subtotal 400 Project Contingency Project Contingency Escalation	\$ \$ \$ \$	Cost	\$ \$ \$ \$ \$ \$	Cost/SF	0% 0% 0.0% 0.000%	

# **Divider II.** Proposal Description:

1. Provide a complete detailed project description, CON project number of the existing equipment (if previous CON approved), and include the type/brand of both the existing equipment and the replacement equipment.

North Kansas City Hospital proposes to replace a linear accelerator that is approximately 11 years old. The existing linear accelerator is a Varian Trilogy System. The existing linear accelerator received a Certificate of Need in 2013 via Project No. 4902 HT.

The replacement linear accelerator is planned to be a Varian TrueBeam System. The replacement linear accelerator will be located in the same suite as the existing linear accelerator at the project address of 2750 Clay Edwards Drive, North Kansas City, MO 64116, which is a medical office building connected to the main hospital via tunnel. The replacement linear accelerator will be placed in a currently unused vault to permit installation and commissioning of the replacement unit without interruption to patient care.

2. Provide a listing with itemized costs of the medical equipment to be acquired and bid quotes.

Please see attached quote from Varian dated September 17, 2024 for the replacement Varian TrueBeam linear accelerator. The quote includes the functionally related devices and software necessary to make the equipment operational as described therein.

3. Provide a timeline of events for the project, from CON issuance through project completion.

The estimated timeline for the linear accelerator replacement project is as follows:

- December 27, 2024 Linnear accelerator replacement approved by Missouri Health Facilities Review Committee via ballot decision.
- December 31, 2024 Purchase order submitted.
- January 1, 2026 Delivery of new linear accelerator. Many hospitals nationwide are experiencing substantial delays in the receipt of new linear accelerators. The manufacturer currently estimates a lead time of approximately 12 to 18 months; however, we are targeting delivery by January 1, 2026. Timing of renovations to

support the linear accelerator replacement will be determined once the timeline for delivery is solidified.

- First two quarters of 2026 Renovations will occur; replacement linear accelerator is installed by the manufacturer; the manufacturer and North Kansas City Hospital's physicist will perform commissioning procedures and quality assurance testing; staff will be trained on the new technology.
- Third quarter of 2026 Staff training will continue on specialized techniques; patient care will begin on replacement linear accelerator; patients with active treatment plans will complete treatment on existing linear accelerator so that there is no interruption to patient care; existing linear accelerator will be taken offline and decommissioned.



# **Custom System Proposal**

Quotation Number - 2024-475036-1

This quote reflects special pricing related bundling with Siemens equipment.

All pricing and configurations contained within quotations supplied to North Kansas City Hospital by Varian Medical Systems are confidential and only intended for North Kansas City Hospital. Disclosure or release to others outside of North Kansas City Hospital"s network, either manually or electronically, without the prior written consent of Varian Medical Systems, is strictly prohibited.





# NORTH KANSAS CITY HOSPITAL ("Customer")

2750 CLAY EDWARDS DR NORTH KANSAS CITY Missouri 64116-3237 United States Tel : 816.691.5342

Email: Ashlyn.Hull@nkch.org

# Varian Medical Systems, Inc.

Jesse Kruser District Sales Manager Work From Home Schiller Park , OH 99999 United States of America Tel : 5134393083

Email: jesse.kruser@varian.com

\*\*\* Confidential - Proposal is intended for Recipient and Recipient's Site Representatives Only \*\*\*

Quote Information		
Quotation Number : 2024-475036-	1	Quotation Valid Until : December 31, 2024
Customer Requested Delivery Dat	e : May 07, 2027	
Customer Procurement Contact N	ame : Needed	
Billing Plan See Quote billing plan Summary on the following pages which is incorporated by reference		
Sales		
Incoterms : DPU Site Insured		
Sales PO Required : No		
Quotation Total		
Quotation Total : US \$3,794,491.00	)	
Subscription Services) as indicated https://varian.com/RAD1652V_US_ attached, referenced or otherwise in incorporated by reference and form If there is a separate written agreem and sale of the specific Products, Suwritten agreement shall govern. Hardupon request.	in this Quotation are subject to and go EN MAR 2024 and (b) any Schedules dicated in this Quotation. All terms and part of the contract between Varian an ent (e.g. master agreement) in effect by upport Services, Services, Software-ast d copies of the referenced terms and of and the services and of description.	between the parties that expressly provides for and governs the purchase s-a-Service and/or Subscription Service set forth in this Quotation, such conditions and any additional terms indicated will be provided to Customer
For and on behalf of Custor	ner	Varian Medical Systems, Inc.
Authorized Representative :		Authorized Representative :
Title :		Title :
Date :		Date :

# **Billing Summary**



Sales Summary					
Value	Billing	Payment Terms			
0.00%	On Down Payment	30 days net			
75.00%	On Shipment	30 days net			
25.00%	On Acceptance	30 days net			
For orders equal or less than \$100k, 100% upon shipment, net 30.					

# **Quotation Summary**



# Offered Products (Sales)

TrueBeam	Included
IDENTIFY Accessories	Included
Interoperability	Included
Physics	Included
TPS Eclipse	Included
ARIA OIS v18.0 or higher	Included
Advantage Credits	Included
RGSC	Included
(1 Year) Extended Warranty for TrueBeam	Included
(1 Year) Extended Warranty for IDENTIFY System	Included
(1 Year) Extended Warranty for RGSC	Included
Advantage Credits	Included
Adhoc	Included



1

# **Item** Description

# 1.0 TrueBeam

# 1.1 TrueBeam Base System 120 MLC

Treatment delivery system includes 120 leaf MLC with dual independent jaws, enhanced dynamic wedge, 6 MV X-ray treatment energy, 43 cm x 43 cm MV imager for radiographic, cine, and integrated imaging, Motion View CCTV camera system, treatment console with integrated audio and video systems, back pointer lasers, front pointer set, upper port film graticule to support basic quality assurance, and drum phantom for Machine Performance Check (MPC).

# Features:

- Basic X-Ray treatment delivery technique package, including Static Photon, Photon Arc, and Dynamic Conformal Arc treatment delivery techniques
- · Intensity Modulated Radiotherapy (IMRT) treatment technique, including large field IMRT
- · Total Body Treatment technique package
- 2D MV Radiographic and Cine Image Acquisition, 2D/2D Radiographic Image Review and match, Cine image review
- Relative Portal Dosimetry Image and Integrated Image Acquisition
- Matching of 2D radiographs to 3D reference images
- Online addition of kV and MV imaging protocols to treatment fields, with automated generation of reference images
- Online Physician Approval of Images at Treatment Console (compatible with ARIA only)
- · Automated Machine Performance Check Testing, Online Machine Performance Check Review
- · Offline Machine Performance Check Review
- · Image only sessions
- Unplanned Treatment Mode up to 5 fractions
- · Fraction number displayed on in-room monitor
- Match environment layout for 2D/2D and 2D/3D layouts default to the 2-panel
- · Custom DRR templates that are created in Eclipse will be available on the TrueBeam Platform
- Online access to a marketing kit that contains a broad range of advertising, educational, promotional, and public relations materials targeted to referring physicians, patients, and the media
- Electronic Dynamic Wedges (EDW)
- Large field IMRT

# Prerequisites:

- ARIA oncology information system for radiation oncology v15.1 through v17.0, or ARIA OIS v18.0 or higher, or compatible third-party oncology information system
- · Eclipse treatment planning system v15.1 or higher, or compatible third-party treatment planning system
- If third-party OIS:
  - Authentication Server for third-party OIS (Hardware and Software) or
  - Authentication Server for third-party OIS (Software only)

# **Customer Responsibilities:**

- · Verify compatibility with third-party oncology information systems if applicable
- Verify compatibility with third-party treatment planning systems if applicable
- If using a scale other than IEC 60601 or IEC 61217 in the rest of the department, it may be necessary to change scales on all other machines. This may require additional purchases.

# Notes:

· Multiple patient name in Japan market is applicable for Kanji, Kana and Romaji characters to identify the patient

1.2 TrueBeam v4.1

1.3 New Universal Baseframe 52" Fixed Floor

1.4 15/16 MV (BJR 11/17)

40 cm x 40 cm maximum field size, dose rate range 0-600 MU/Min.

1.5 10/10 MV (BJR 11/17)

40 cm x 40 cm maximum field size, dose rate range 0-600 MU/Min.

1.6 6/6 MV (BJR 11/17)

1

40 cm x 40 cm maximum field size, dose rate range 0-600 MU/Min.



Item	Description	
1.7	12 MeV, 0-1000 MU/Min	1
	25 cm x 25 cm maximum field size, dose rate range 0-1000 MU/Min.	
1.8	9 MeV, 0-1000 MU/Min	1
	25 cm x 25 cm maximum field size, dose rate range 0-1000 MU/Min.	
1.9	6 MeV, 0-1000 MU/Min	1
	25 cm x 25 cm maximum field size, dose rate range 0-1000 MU/Min.	
1.10	PerfectPitch 6DoF Couch	1
	The PerfectPitchTM 6-Degrees of Freedom couch system  Features: Image-based 6DoF patient positioning  Prerequisites: TrueBeam® v2.5 MR2 or higher ARIA® oncology information system v11.1 MR1 (11.0.55) and ARIA radiation therapy management v11 MR3 (11.0.47) or higher or compatible third-party oncology information system  Customer Responsibilities: Verify compatibly of third-party oncology information system	
1.11	10X High Intensity Mode	1
	40 cm x 40 cm maximum field size, dose rate range 400-2400 MU/min in 400 MU/min steps.	
1.12	6X High Intensity Mode	1
	40 cm x 40 cm maximum field size, dose rate range 400-1400 MU/Min in 200 MU/min steps.	
1.13	Low-X Imaging Energy	1
	Low-X imaging energy configuration, providing high soft tissue contrast when imaging in-line with the treatment beam.	
1.14	HyperArc Treatment Delivery Capability	1
	Frameless, MLC-based technique for multiple intracranial SRS targets. Automated non-coplanar treatment delivery with integral intrafraction imaging at specified couch angles.  Features:  HyperArc™ Delivery License  Prerequisites:  TrueBeam™ or Edge® system v2.7 or higher  RapidArc® delivery license or Varian Volumetric Modulated Arc Therapy delivery license  PerfectPitch™ 6-Degrees of Freedom (6DoF) couch  Varian IGRT couch top or QFix KVue™ or kVue Calypso® couch top  Qfix™ Encompass™ SRS immobilization system for Qfix kVue™ or Qfix™ Encompass™ SRS immobilization system for kVue Calypso® or Qfix™ Encompass™ SRS immobilization system for IGRT couch top  Eclipse™ treatment planning system v15.5 or higher  HyperArc treatment planning license  Eclipse RapidArc® planning license  ARIA® oncology information system for radiation oncology v15.1 through v17.0, or ARIA OIS v18.0 or higher, or compatible third-party oncology information system  Customer Responsibilities:  TrueBeam/Edge system needs to pass isocenter test that is performed by Varian installation/local service team.  Use of external devices connected to Motion Management or ADI interfaces with HyperArc are not validated or supported by Varian.  Verify compatibility with third-party oncology information systems if applicable  Notes:	

• It is recommended that the patient CT scan used for treatment planning be acquired at a slice thickness of 1.25

mm or better



# 1.15 RapidArc Treatment Delivery

1

RapidArc® Treatment Delivery is a volumetric modulated arc treatment delivery technique.

#### Features:

- Simultaneous modulation of MLC aperture shape, beam dose rate, and gantry angle and rotation speed during beam delivery
- · Supports dynamic jaw tracking and collimator rotation with supporting treatment planning system

# Prerequisites:

- 120 Multi Leaf Collimator or HD120™ Multi Leaf Collimator
- Eclipse<sup>™</sup> treatment planning system v11.0 or higher
- · RapidArc treatment planning license
- Compatible server hardware and operating system. For detailed specifications, visit: www.varian.com/ hardwarespecs

# 1.16 kV Imaging System

1

kV Imaging system, providing 2D radiographic and fluoroscopic and 3D CBCT imaging capability

# Features:

- kV CBCT image acquisition, review, and match to 3D reference image
- · Radiographic image acquisition, with 2D/2D and 2D/3D image matching to reference image
- · Fluoroscopic image acquisition, with structure overlay on fluoroscopic images.
- · kV CBCT image acquisition with a long field of view, provided by merging multiple indexed CBCT images online.

# Prerequisites:

- ARIA oncology information system for radiation oncology v15.1 through v17.0, or ARIA OIS v18.0 or higher, or compatible third-party oncology information system
- TrueBeam Platform v3.0 or higher

# **Customer Responsibilities:**

· Verify compatibility with third-party oncology information systems if applicable

# 1.17 Enhanced Triggered Imaging

1

Automated intrafraction 2D kV radiographic imaging, with images triggered by respiration phase or amplitude, gantry angle, time period, or MU. Automated image-based beam hold on fiducial markers, based on user-defined marker motion thresholds.

# Features:

· Arbitrarily shaped fiducial detection for Auto Beam Hold (ABH)

# Prerequisites:

- TrueBeam® or Edge™ v4.0 or higher
- Advanced Respiration Motion Management System or Basic Respiration Motion Management System

# 1.18 Advanced Resp Motion Management System

1

Advanced Respiratory Motion Management System is a stereoscopic optical system for managing patient respiration motion during treatment delivery and imaging.

# Features:

- · Stereoscopic optical imager, including marker block for tracking patient respiration motion
- Respiratory gated treatment delivery
- Respiratory gated MV image acquisition and online review, respiration synchronized cine image acquisition and online review
- Respiratory gated kV image acquisition and online review, respiration synchronized fluoroscopic image acquisition and online review

# Prerequisites:

- TrueBeam®, VitalBeam, or Edge v2.7 and higher
- · kV Imaging System

# 1.19 Gated CBCT

1

Gated Cone-Beam Computed Tomography (CBCT) provides the ability to acquire CBCT images synchronized with patient respiration (free-breathing or breath hold).

# Features:

- · Gated CBCT Imaging License
- Short Arc CBCT Imaging License: CBCT image acquisition using a 120-150-degree arc, image review, and image match to respiratory gated reference image. Short arc CBCT can be used for single breath hold CBCT data acquisition.



# Prerequisites: TrueBeam®, VitalBeam, or Edge v2.7 or higher One of the following: Advanced Respiratory Motion Management System Basic Respiratory Motion Management System · kV Imaging System 1.20 **Accelerated 4D CBCT Reconstruction** 1 License and hardware package for 4D CBCT accelerated reconstruction Features: 4D kV CBCT License 4D CBCT Reconstruction on GPU License Package · 4D kV CBCT Image Match Review License Prerequisites: TrueBeam Platform v3.0 or higher kV Imaging System Basic Respiratory Motion Management or Advanced Respiratory Motion Management System 1.21 **Main Circuit Breaker Panel** 1 Main circuit breaker panel, interfacing to a single power input feed from the facility Mains. Circuit breakers provide independent over-current protection for equipment at the console and in the treatment room. UL and IEC/CE certified. 1.22 Power Cond., 3phase 50KVA 1 Transtector 50KVA, 3-phase power conditioning unit, providing transient protection, line power regulation, and Input and Output circuit breakers for over-current protection. UL and IEC/CE certified. Notes: · Supports voltage configurations from 208 to 600 VAC and in 50 or 60 Hz for US and ROW applications. 1.23 **CatPhan Phantom** 1 Phantom for measuring CBCT image contrast, spatial resolution, and uniformity. Features: · Modules for measuring CBCT image contrast, spatial resolution, and uniformity Prerequisites: · kV Imaging system with CBCT 1.24 Supp. Phantom Kit 1 Supplemental imaging phantom kit for measuring resolution and contrast of kV and MV imaging systems. Features: Leeds TOR 18FG phantom for measuring spatial resolution and contrast of kV imaging system MV contrast phantom for measuring contrast performance of MV imaging system Geometric phantom, mounted on IGRT couch top-compatible lock bar. Can be used for quality assurance of image guidance workflow. Prerequisites:

**Item** 

**Description** 

· MV imaging system



# 1.25 Motion Management Interface

1

Motion management interface is an integrated interface for validated external devices that provide patient positioning, patient and target motion monitoring, and/or respiratory gating. The Motion management interface supports connection of up to four external devices, two of which may be used for respiratory motion management or high speed beam hold.

## Features:

- 4-DoF or 6-DoF patient positioning capability for compatible validated devices and couch configurations
- Integrated external device beam hold and image-based patient repositioning workflow
- · Patient-specific external device activation and patient plan verification

1.26 NLS: English

1

# 1.27 STD TRNG: TB Platform On-Site

1

The on-site review of the TrueBeam/Edge/VitalBeam components includes imaging and use cases for support of patient treatment for therapists. This support is to ensure that personnel who attended the classroom training are able to operate the TrueBeam Platform machine in a safe and effective manner in the clinical environment.

# Features:

- Includes support for TrueBeam/Edge/VitalBeam
- · Offer is valid for 18 months after installation of product

# Prerequisites:

· TrueBeam Platform classroom trainings

# Notes:

· Training is non-refundable and non-transferable

# 1.28 STD TRNG: Two Day Follow Up

1

Two Day Follow Up Training. This follow up training is conducted after the initial training has been completed to ensure safe and efficient use of the product.

# Features:

- Training plan details will be provided by the training management team as part of your product implementation process
- Duration and Location: 2 days onsite

# Prerequisites:

· Initial product training completed

# Notes:

- · Offer is valid for up to 18 months after installation of product
- · Non-transferable to other products and services and non-refundable

# 1.29 INCL ED: TB201 TB Platform Physicists

1

TrueBeam Physics and Administration: TrueBeam Physics and Administration course is designed for personnel (primarily Medical Physicists) responsible for the acceptance, commissioning, and QA program development of the TrueBeam in the clinical environment. It is recommended that the student attend the TrueBeam Physics and Administration course shortly before the installation of the TrueBeam. The course provides instruction of the basic delivery components, basic imaging components, and a general overview of the motion management system components. Machine commissioning, calibration, and QA of the machine are included. The course subject matter is presented from a clinical use perspective. Primary emphasis is on the overall commissioning, calibration, and QA of the TrueBeam and its components. Extensive hands-on laboratory exercises are included.

# Features:

- Includes support for TrueBeam/Edge/VitalBeam
- Includes Tuition and Materials for ONE person
- Length: 4.5 days
- · Offer is valid for 18 months after installation of product

# **Customer Responsibilities:**



1

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1

1

#### **Description Item**

- · Customer is responsible for all travel expenses (airfare, hotel, rental car, meals and travel incidentals)
- · Training is non-refundable and non-transferable

#### **INCL ED: TB101 TB Platform Operations** 1.30

TrueBeam Operations is a course designed for personnel (primarily Radiation Therapists) responsible for the routine operation and clinical use of the TrueBeam. It is recommended that students attend the TrueBeam Operations course shortly before clinical use and the commencement of patient treatments. The course provides instruction of the basic delivery components, basic imaging components, and a general overview of the motion management system components. The course subject matter is presented from a clinical use perspective. Primary emphasis is on the overall understanding of the TrueBeam function and operation to include imaging and respiratory gating. Extensive hands-on laboratory exercises are included. The attendees of this class will be provided tools to allow them to instruct other clinical staff upon their return.

## Features:

- Includes support for TrueBeam/Edge/VitalBeam
- Includes Tuition and Materials for ONE person
- Length: 4 days
- Offer is valid for 18 months after installation of product

# **Customer Responsibilities:**

- · Customer is responsible for all travel expenses (airfare, hotel, rental car, meals and travel incidentals) Notes:
- · Training is non-refundable and non-transferable

#### INCL ED: CL222 Respiratory Gating 1.31

The Respiratory Gating course provides training for physicists and therapists, to obtain knowledge of principles and practices of respiratory gating in radiation oncology for clinical implementation.

# Features:

- · Includes support for TrueBeam Platform
- Includes Tuition and Materials for ONE person
- Length: 2 days
- Offer is valid for 18 months after installation of product

# **Customer Responsibilities:**

- · Customer is responsible for all travel expenses (airfare, hotel, rental car, meals and travel incidentals)
- · Training is non-refundable and non-transferable

#### 1.32 Vertical LAP Apollo Green Room Laser Kit

LAP Apollo Green Room Laser Kit for patient alignment with Vertical Remote-Controlled Sagittal Line Laser.

- 1 Apollo Green Remote-controlled Ceiling Crosshair Laser
- 2 Apollo Green Remote-controlled Lateral Crosshair Lasers
- 1 Apollo Green Vertical Remote-Controlled Sagittal Line Laser

#### 1.33 Quick Ref Guide - English

**HyperSight Imaging Solution** 1 34

# HyperSight™ for TrueBeam® Platform

# Features:

- Gantry speed up to 1.5 RPM for Imaging and motions between treatment fields.
- **CBCT Metal Artifact Reduction**



- · HU Accuracy and Uniformity
- Extended Field of View reconstruction
- · Quart phantom for HU calibration
- 27" Console Monitors

## Prerequisites:

- TrueBeam or Edge™ v4.1 or higher
- · ARIA® oncology information system (OIS) v15.1 v18.0 or higher, or compatible third-party
- Eclipse™ treatment planning system v15.1 or higher, or compatible third-party
- If third-party OIS:
  - · Authentication Server for third-party OIS (Hardware and Software) or
  - Authentication Server for third-party OIS (Software only)

# 1.35 IGRT Couch Top

1

Image Guided RadioTherapy (IGRT) carbon fiber treatment couch top, free of metal or other radiation-opaque materials.

# Features:

- · Indexed Immobilization® for compatible accessories
- · Couch top interface for mounting patient immobilization and quality assurance devices at the head of the couch
- · Lock bar for indexed positioning of equipment or immobilization devices on the couch top
- Handrail for couch positioning, with hooks for temporary pendant placement during patient set up

# 2.0 IDENTIFY Accessories

# 2.1 IDENTIFY Treatment Base System

1

Provides common components for IDENTIFY™ treatment room systems

# Features:

- GPU-equipped workstation with monitor, keyboard, mouse at treatment console
- · Handheld controllers with chargers
- Wireless access points at the treatment console and in the treatment room

# Prerequisites:

 TrueBeam™, Edge™, or VitalBeam™ v2.5 or higher or Clinac® v9.1 or higher Halcyon™ v1.0 or higher, Ethos™ v1.0 or higher or other compatible linear accelerator

# **Customer Responsibilities:**

- If using third-party linear accelerator, confirm that it meets compatibility requirements that are listed in Customer Release Notes (CRN)
- · Meet all requirements per the Product Planning and Customer Integration Guides

# Notes:

- · Clinical Site Survey and Network Site Survey completion required prior to installation
- Any ceiling-mounted systems present in the treatment room will be subject to a compatibility review prior to installation by Varian Service

# 2.2 IDENTIFY Central Server Software

1

Provides central database for IDENTIFY™ and interface to Oncology Information System on customer-provided server

# Features:

- · Server software and database for management of 15 IDENTIFY clients
- HL7 interface to supported OIS
- User rights management
- Report generation

# Prerequisites:

- ARIA oncology information system v13.6 MR1.2 or higher with ARIA® Connect v2.0 or higher OR validated third-party oncology information system with HL7 interfaces (SIU Outbound, SIU Inbound, Document Inbound) Customer Responsibilities
- If using third-party oncology information system, confirm that it meets compatibility requirements that are listed in Customer Release Notes (CRN)
- · Customer provides and host a virtual server
- Meet all requirements per the Product Planning and Customer Integration Guides

# Notes:

· Clinical Site Survey and Network Site Survey completion required prior to installation



# 2.3 STD TRNG: IDENTIFY SGRS Onsite Training

1

# Standard Applications Training for IDENTIFY SGRS

## Features:

- On-site training details will be provided by the training management team as part of the product implementation process
- · This training will review features and functions of the IDENTIFY system
- · Duration and Location: 3 days onsite

# Prerequisites:

- Installation of the IDENTIFY system
- Completion of the Varian ID101 IDENTIFY SGRS Operations classroom course

# **Customer Responsibilities:**

· Completion of the Customer Responsibilities Document

# Notes:

- Offer is valid for up to 18 months after installation of product
- · Non-transferable to other products and services and non-refundable

# 2.4 STD TRNG: IDENTIFY SGRS Onsite Follow U

1

# Standard Applications Training for IDENTIFY SGRS

## Features:

- On-site training details will be provided by the training management team as part of the product implementation process
- This training will offer a review of the IDENTIFY SGRS system and assist with workflow changes
- · Duration and Location: 2 days onsite

# Prerequisites:

- · Installation of the IDENTIFY system
- Completion of the Varian ID101 IDENTIFY SGRS Operations classroom course
- · Completion of the IDENTIFY SGRS standard onsite training

# **Customer Responsibilities:**

Completion of the Customer Responsibilities Document

# Notes:

- · Offer is valid for up to 18 months after installation of product
- · Non-transferable to other products and services and non-refundable

# 2.5 INCL ED: ID101 IDENTIFY SGRS Operations

2

The IDENTIFY™ Operations course is designed for a new user of the IDENTIFY SGRS System. The course consists of lectures, instructor-led demonstrations, and individual hands-on exercises. Intended audience includes radiation therapists or medical physicists.

# Features:

- · Topics covered include:
  - An overview of the IDENTIFY hardware
  - In-depth training for patient entry
  - · QA considerations and procedures
  - · Treatment workflows
- Training Type: A combination of e-learning online modules on the VarianThink platform and a virtual instructorled (VILT) session

# **Customer Responsibilities:**

- Must have access to a telephone and computer with an internet connection
- · Completion of the online learning modules on VarianThink before attending the instructor-led session

# Notes

- · Includes tuition and materials for one person
- · Offer is valid for up to 18 months after installation of product
- Non-transferable to other products and services and non-refundable

# 2.6 IDENTIFY SGRS Sys with Beam Hold

1

Provides IDENTIFY™ surface-guided patient position monitoring for radiotherapy with automatic beam hold functionality

# Features:

- · SGRS patient position monitoring system, 3-camera configuration
- SGRS calibration phantom and software
- Deep inspiration breath-hold management with Visual Coaching Device (VCD)



#### **Description Item**

- · IDENTIFY Windows Planning Tool
- Automatic beam hold functionality

# Prerequisites:

- TrueBeam™, Edge™, or VitalBeam™ v2.5 or higher
- IDENTIFY™ Treatment Base System
- · Motion Management Interface
- kV Cone Beam CT
- Eclipse™ Treatment Planning System v13.6 or higher or compatible third-party solution supporting DICOM RT plan and structure set export
- ARIA® oncology information system for radiation oncology v13.6 through v17.0, or ARIA OIS v18.0, or compatible third-party oncology information system
- For VCD couch mount: compatible couch top listed in the IDENTIFY Couch Top Compatibility Matrix
- For IDENTIFY reports in ARIA: ARIA Connect v2.0 or higher and ARIA Disease Management Smart Space license

# **Customer Responsibilities:**

- Work with Varian representative to complete Clinical Site Survey and Network Site Survey to meet the requirements per the Product Planning and Customer Integration Guides
- Confirm third-party compatibility treatment planning system
- Confirm third-party oncology information system

#### 3.0 Interoperability

#### 3.1 ARIA Connect for ARIA OIS for IDENTIFY

This item includes ARIA Connect interfaces to support IDENTIFY connectivity with ARIA® Oncology Information System.

## Features:

Interface include Scheduling In, Scheduling Out, and Documents In

# Prerequisites:

- ARIA Connect for ARIA OIS
- ARIA® OIS for Radiation Oncology v13.6.38 MR1.2 or higher or ARIA OIS v18 or higher

# **Customer Responsibilities:**

- Dedicated server environment for ARIA Connect, as defined on www.varian.com/hardwarespecs
- Customer will make its site available to Varian personnel to install the software interface (the "Interface") no later than eighteen months (18) after the date of purchase (the "Interface Installation Period"). Customer will be deemed to have accepted the Interface after the Interface Installation Period if (i) Customer does not permit Varian to install the Interface within such time frame and (ii) Varian delivers to Customer the Interface electronically or physically. After the Interface Installation Period, Varian's obligation to install the Interface within such time frame will end; provided, that Customer may contact Varian when Customer is prepared to have the Interface installed. Additional service charges may apply for such installation by Varian after the Interface Installation Period. Customer shall not permit a third party to install the Interface without Varian's prior written consent.

# Notes:

Notes

# 4.0

#### 4.1 AOS1a Comm Preconf 5X no SRS cones

Comprehensive Eclipse Data Set Collection for validation of Pre-Configured Models up to five (5) photon energies. Advanced Oncology Solutions (AOS) will commission up to three (3) standard and two (2) FFF X-ray energies and up to six (6) electron energies. The service will take an estimated three (3) calendar days.

- All Eclipse required photon percent depth dose, profile, and output factor measurements for comparison with Varian Representative Beam data
- All Eclipse required electron percent depth dose, air profile and applicator factor measurements for comparison with Varian Representative Beam data
- Small field measurements down to 1x1 for validation
- Eclipse modeling using preconfigured models with Varian Representative Beam data or customer equivalent machine models
- Enhanced Dynamic Wedges verification for various angles
- MLC measurements of MLC transmission and dosimetric leaf gap (DLG)
- Gamma analysis of measured vs Varian Representative Beam data
- Gamma analysis of measured vs Eclipse calculated data

1

1



1

# **Item** Description

- · Absolute dose measurement for comparison to TPS calculation
- RapidArc commissioning
- TG51 reference calibration
- If applicable: Portal Dosimetry commissioning with preconfigured models
- · IMRT and VMAT optimization
- · Eclipse beam model configuration
  - Verify console configuration for the linac is setup properly in Eclipse. Import the console configuration if necessary
    - Utilizing Representative or preconfigured beam data, configure beam models for each energy. This
      will include AAA, AcurosXB and optimizer models for x-rays and eMC for electrons
    - · Creation and calculation of test plans for model validation
    - · Complete sample EDW and RapidArc plans
    - Backup machine configuration and Eclipse beam data
- · Absolute dose calibration check
  - Absolute dose calibration check of linac using the AAPM TG51 protocol for reference only as customer's physicist must do the final absolute dose calibration of the linac
    - Customer physicist will specify the calibration geometry including SSD, depth at which 1MU=1cGy, and reference field size/applicator
- · Data book and Commissioning report

# **Customer Responsibilities:**

- · Acceptance of accelerator and Eclipse machines must occur before commissioning can begin
- · Full access 24-7 to the accelerator, accessories, and the control room
- · Secured internet access
- Access to network computers, as well as ARIA-Eclipse with administrator privileges
- · Customer site physicist must be present for deliverables and approvals

#### Notes

- · This service does not include commissioning for Hard Wedge
- · This service does not include commissioning for SRS cones
- · This service does not include clinical implementation
- This service does not include general configuration of ARIA-Eclipse, connectivity, image or data transfer, tolerance tables, user rights, and CT calibration

# 4.2 AOS HyperArc Adv. Clinical Implementation

Advanced Oncology Solutions (AOS) HyperArc<sup>™</sup> advanced clinical implementation is intended to help prepare the clinical team to treat patients with MLC based SRS using HyperArc and to support the optimization of clinical processes by physicians, therapists, dosimetrists, and physicists.

# Features:

- Site Readiness Assessment
- · Review patient immobilization
- Review quality assurance (QA)
- · Review Clinical workflows
- Review existing procedures
- · Provide sample operating procedures
- Consult on Eclipse™ clinical protocols and clinical goals
- · Review dose optimization approaches
- · Review commissioned Eclipse for dose deviations
- · Consult regarding patient specific treatment QA
- · Dry run with anthropomorphic phantom
- · Remote assistance on two (2) patient treatments
- Remote initial consultation
- · Three (3) days on-site support
- Validation report

# Prerequisites:

- · Eclipse v15.5 or higher accepted and commissioned
- TrueBeam®v2.7 or higher or Edge®v2.7 or higher -accepted and commissioned

# **Customer Responsibilities:**

- · Varian AOS SRS commissioning or comparable scope of work completed
- · Network connectivity and necessary licenses
- · Core users representing the radiation oncology patient process

# 5.0 TPS Eclipse

5.1 HyperArc Planning 1



Eclipse external beam planning for frameless, MLC-based delivery technique for single or multiple intracranial SRS targets in support of HyperArc™ delivery.

# Features:

HyperArc<sup>™</sup> Planning License for one user

# Prerequisites:

- · HyperArc delivery license
- TrueBeam® or EDGE™ system software v2.7 or higher
- · Eclipse RapidArc Planning License

# 5.2 STD TRNG: HyperArc Consultant Suprt

1

Standard Training HyperArc™ Consultant Support

#### Features

- Consultant will provide clinical support to establish a Stereotactic Radiosurgery (SRS) Program at customer site. The consultant will cover the necessary workflow for the following:
  - patient selection
  - · positioning and imaging
  - · treatment planning
  - · dose prescriptions and organ at risk sparing
  - · quality assurance
  - · treatment imaging and delivery
  - · patient follow up
- Duration and Location: 2 days at customer site plus 4 hours of remote support

# Prerequisites:

- HyperArc v15.5 or higher installed
- Truebeam v2.7 or higher installed

# Notes:

- · Offer is valid for up to 18 months after installation of product
- · Non-transferable to other products and services and non-refundable
- This entitled training is for up to 3 users. The intended audience includes physicists, physicians, dosimetrists, treatment planners and other staff as appropriate

# 5.3 STD TRNG: HyperArc Follow Up Trng

1

Standard Training HyperArc™ Follow Up Training Onsite

# Features:

- Applications trainer will provide on-site follow up visit to answer questions related to use of the system
- · Duration and Location: 1 day at customer site

# Prerequisites:

- · Customer must have already treated patients using the HyperArc system
- Customer must have completed the HyperArc Consultant Support standard training

# Notes:

- · Offer is valid for up to 18 months after installation of product
- · Non-transferable to other products and services and non-refundable
- This entitled training is for up to 3 users. The intended audience includes physicists, physicians, dosimetrists, treatment planners and other staff as appropriate
- · This training will optimally occur approximately 4 weeks after HyperArc go live.

# 5.4 STD TRNG: HyperArc- Onsite

1

Standard Training for HyperArc™ Planning. Intended audience includes physicists, dosimetrist/treatment planners and other staff as appropriate.

# Features:

- Training Plan details will be provided by the training management team as part of your product implementation process. Topics covered can include:
- Workflow treatment planning from CT protocol
- · Plan generation
- Fixation device
- Optimization
- · Plan preparation for imaging and treatment
- · Duration and Location: 1 day at customer site



# Prerequisites:

HyperArc installed

# Notes:

- · This entitled training is for up to 3 users
- · Offer is valid for up to 18 months after installation of product
- · Non-transferable to other products and services and non-refundable

# 5.5 INCL VT: HP101 HyperArc TPD VarianThink

1

This HyperArc Treatment Planning and Delivery VarianThink course is designed to provide the staff knowledge and understanding required to effectively commission and use the HyperArc software.

# Features:

- Topics covered include:
  - Review of the software
  - · Encompass Device
  - Simulation Procedure
  - · Creating a HyperArc Treatment Plan
  - · Quality Assurance
  - Treatment Delivery
  - Training Type: e-learning modules via the VarianThink™ online platform

# Prerequisites:

- Basic knowledge of computers and the Windows operating system
  - Eclipse<sup>™</sup> treatment planning v15.5 or above
  - ARIA® oncology information system v15.1 above
  - TrueBeam® system / Edge® radiosurgery system v2.7 or above
  - Completion of the HyperArc Quality Assurance -- State of the Art and Future Directions Webinar by Richard Popple on MyVarian.com
  - Must have Encompass device from QFix and completed Pre-Onsite Encompass Support and Fabrication
    of Immobilization Device training from QFix

# **Customer Responsibilities:**

· Must have a computer or device with internet access to view online content

# Notes:

- · This entitlement includes system access for one user per licensed account
- Offer is valid for up to 18 months after installation of product
- Access to course content is valid for up to 90 days from initial access of the course on the VarianThink online platform
- Non-transferable to other users, products, and services and non-refundable

# 5.6 Non-Clinical HyperArc

1

Eclipse™ external beam planning for frameless, MLC-based delivery technique for single or multiple intracranial SRS targets in support of HyperArc™ delivery.

# Features:

Non-Clinical HyperArc Planning License for one (1) user

# Prerequisites:

- Eclipse T-Box Software Package or Eclipse Educational/Research SFW Package
- Non-Clinical RapidArc Planning

# **6.0** ARIA OIS v18.0 or higher

# 6.1 ARIA OIS Imaging Smart Space

3

The Imaging Smart Space is a component of the Oncology Information System, ARIA. This image management component of the system provides comprehensive image review to verify patient positioning using reference and treatment images. Enhancement and analysis tools for portal images (MV), kV and Cone Beam CT images are included.

# Features:

• One (1) license for one (1) concurrent user

# Prerequisites:

- Varian Databases
- ARIA OIS Smart Space

# **Customer Responsibilities:**

- · A Microsoft Active Directory Domain Controller running on an independent server
- · Image server hardware
- Compatible Microsoft Windows operating system installed on workstations



- ARIA compatible workstation in a properly networked environment
- Varian system compatible server hardware and operating system in a properly networked environment. For detailed specifications, please visit www.varian.com/hardwarespecs or visit MyVarian

## 6.2 STD TRNG: Remote 1

Standard remote training.

### Features:

- Training details will be provided by the training management team as part of the product implementation process
   Customer Responsibilities:
- · Review all product documentation available on MyVarian.com in advance
  - Customer Release Notes
  - · Instruction for Use
- · Must have access to a phone and computer with internet connection

#### Notes

- Offer is valid for up to 18 months after installation of product
- · Non-transferable to other products and services and non-refundable

# 7.0 Advantage Credits

# 7.1 Advantage Contract Credits

Advantage Credits can be utilized for Varian's Professional Services, such as on-site applications training, education, consulting (in applicable regions), and third-party services including clinical schools that are purchased through Varian. For further details, please reference the attached Terms and Conditions.

# Notes:

· Offer is valid for 24 months after purchase

# 7.2 Product Applications TrueBeam (per hour)

40.0

(Qty: 40, Credit per Qty: 1.0)

Additional TrueBeam onsite training is available for previously trained Varian products. Sold and delivered by hours.

# 8.0 RGSC

# 8.1 RGSC -- Wall/Ceiling Mount Camera

1

Respiratory Gating for Scanners (RGSC) is for respiration synchronized image acquisition on CT and PET-CT scanners. The RGSC system correlates tumor motion with the patient's breathing cycle.

# Features

- Monitors patient position during image acquisition in 3 motion axes
- · Provides session recording
- The predictive filter monitors and predicts the patient's breathing pattern
- Coaching of patient during breathing using audio and optional visual support
- · Includes five (5) marker blocks
- Wall or ceiling mount camera configuration

# Prerequisites:

 If using ARIA® with RGSC in database mode, confirm ARIA compatibility in the latest RGSC Customer Release Note at MyVarian

# **Customer Responsibilities:**

Validate CT/PET scanners compatibility

# 8.2 RGSC version 2.0

1

# 8.3 VCD Option, Couch Mounted

1

Visual Coaching Device (VCD), couch mounted

# Features:

· Visual Coaching Device (VCD) monitor to assist patient to achieve a steady and predictable breathing pattern



 VCD connects to the Respiratory Gating for Scanners (RGSC) system wirelessly and supports all image acquisition modes, including breath-hold

# Prerequisites:

RGSC system v1.1 or higher

# **Customer Responsibilities:**

· Customer must ensure that the compatible couchtop or overlay is installed.

# 8.4 STD TRNG: RGSC

1

This onsite training is included with the purchase of Respiratory Gating for Scanners (RGSC). This training covers RGSC Overview, System Components, User Rights, Start up and Shut down, Reference Session Procedure, Visual Coaching Device (if applicable), Quality Assurance, and References.

Training plan details will be provided by the training management team as part of your product implementation process.

# Features:

- · On-site training for using the RGSC system on a CT Scanner
- Length: 1 day
- · Offer is valid for 18 months after installation of product

# Prerequisites:

RGSC system

# **Customer Responsibilities:**

· Customer must ensure all trainees are available for the entire duration of scheduled training.

## Notes:

· Training is non-refundable and non-transferable

# 8.5 Connect with GE

1

RGSC system configured for validated GE Scanners.

# Features:

Connectivity to GE scanners

# Prerequisites:

RGSC v2.0 or higher

# **Customer Responsibilities:**

· Validate CT/PET scanners compatibility

# 8.6 VCD Couch Mount for Diacor

1

Visual Coaching Device (VCD) couch mount hardware for Diacor CT Overlay Flat Table

# Prerequisites:

- · Respiratory Gating for Scanners (RGSC) system v1.1 or higher
- Visual Coaching Device (VCD)

# **Customer Responsibilities:**

- Diacor CT Overlay Flat Table
- Customer must ensure that the compatible couchtop or overlay is installed.

# **9.0** Extended Warranty for TrueBeam (1 Year)

Extended Trainanty for TraeBeam (1 Tear)

1

HyperSight G/SA CBCT ARMM Triggered Imaging / Enhanced Trigger Imaging KV Imager

**TrueBeam** 

9.1

Rapid Arc/VVMAT HYPERARC DELIVERY

PerfectPitch Couch

MLC 120

MV Imager



# 10.0 Extended Warranty for IDENTIFY System (1 Year) 10.1 IDENTIFY System 1 IDENTIFY SGRS IDENTIFY Server IDENTIFY Base 11.0 Extended Warranty for RGSC (1 Year) 11.1 RGSC 1 Visual Coaching DeviceHCD

# 12.1 Advantage Contract Credits

**Advantage Credits** 

12.0

Advantage Credits can be utilized for Varian's Professional Services, such as on-site applications training, education, consulting (in applicable regions), and third-party services including clinical schools that are purchased through Varian. For further details, please reference the attached Terms and Conditions.

# Notes:

Offer is valid for 24 months after purchase

# 12.2 ED: TB101 TrueBeam Platform Operations

16.0

(Qty: 1, Credit per Qty: 16.0) Includes Tuition and Materials for ONE Person

This course provides training for Radiation Therapists responsible for the operation of the TrueBeam, providing an overview of the TrueBeam system, hands-on training to include: system components, shutdown procedure, startup with basic morning QA procedures, startup after an emergency shutdown and power failure, basic administrative information and treatment and imaging scenarios to include: basic 2D and 2D-2D imaging, treatment with automation, LaserGuard II and Machine Protection, imaging and treatment with custom blocks, Cone-Beam CT, gated imaging and treatment with intra-fraction motion review, auto-beam hold and emergency treatment.

Designed for Radiation Therapists who will treat patients on a daily basis and will be able to teach TrueBeam others users in the department

Pre-Requisites: Clinical training in Radiation Therapy. Clinical experience if treating patients on Varian machines. Clinical experience of IGRT, OBI and Cone-Beam CT.

Application has been made for MPCEC credits

# **Duration and Location:**

4.0 days

Varian Education Center

Las Vegas, Nevada, USA

Advantage Credits Eligible

Customer is responsible for all travel expenses (airfare, hotel, rental car, meals and travel incidentals), unless otherwise stated.



# 13.0 Adhoc

# 13.1 Travel and Lodging

1

Travel and Lodging that is purchased through Varian can only be used for attendance of education courses at a Varian Education Center and Varian clinical schools. Travel and Lodging cannot be used to attend tradeshows, or any event not related to Varian education and training courses. Allowance is applied only to the Travel and Lodging expenses, including airfare, hotel accommodations at a Varian preferred hotel, and a rental car. The customer is responsible for any expenses outside of the allowance.

Travel and Lodging charges, including any booking fees, will be direct billed and are not reimbursable if travel is booked outside of the travel agents used by Varian Medical Systems only. Once the customer's course registration is confirmed, the customer will contact Varian's designated travel agency to make the necessary travel arrangements and must provide their Varian sales order number.

The Travel and Lodging allowance expires 24 months from the acceptance date of the equipment. Any remaining balance is non-refundable and cannot be traded for other products or services.



# Summary of Advantage Contract Credits Quoted Above

Section 12.0	
Year 1 Total	16.0
Total Credits	16.0
Section 7.0	
Year 1 Total	40.0
Total Credits	40.0



Sales Price Table

Sales Total	US \$3,794,491.00
Quotation Total	US \$3,794,491.00



# Advantage Credits Supplemental Terms and Conditions

# (Form RAD 10442)

These Advantage Credits Supplemental Terms and Conditions ("Supplemental Terms") modify and supplement the Varian Terms and Conditions of Sale (Form RAD 1652, current version issued with the Quotation) (the "Terms and Conditions of Sale"). The terms of the applicable Varian Quotation ("Quotation"), its attachments, including the Terms and Conditions of Sale, are incorporated herein by this reference, and together with these Supplemental Terms and any applicable Third Party Terms (as defined in the Quotation) (collectively referred to as the "Agreement") will apply and govern the use by Customer of Advantage Credits.

# 1. General

The Varian Advantage Credit Program (the "**Program**") offers customers the ability to purchase Advantage Credits in advance that can be applied toward designated Varian Professional Services including certain consulting (e.g. specified and limited implementation and optimization services), on-site training, educational courses and a limited number of services provided by designated third party service providers, including clinical schools and physics commissioning services. Advantage Credits provide flexibility for the Customer to apply them interchangeably for those designated services available under the Program without having to modify the underlying Quotation and related purchase order. However, Varian must be notified in advance and in writing of any requested changes to selected services.

# 2. Expiration Schedule

Advantage Credits expire according to the following schedule:

Type of Order	Expiration Date
Advantage Credits only (no Varian products)	24 months from date of order
Advantage Credits with one or more Varian products	24 months from first date of product/service acceptance
Multiyear agreement	End of the term of agreement

# 3. Scopes of Work

Varian or its third party service providers may, at their discretion, set forth in a written Scope of Work (SOW) a description of the services to be provided by Varian or the third party service provider. If the services that will be purchased with Advantage Credits are defined within the Quotation, Varian will offer the specific services listed for the amount of Advantage Credits indicated. If Advantage Credits in the Quotation are "**Undefined**", Varian will indicate the number of Advantage Credits required for a particular service at the time the Customer wants to use them.

# 4. Third Party Service Providers

- 4.1 Certain services are provided by and through third party service providers that are not affiliated with Varian, namely clinical schools and physics services (e.g. commissioning). Varian disclaims any warranty or performance obligations related to any third party service provider and will act solely as a pay agent, to collect fees for services from Customer and to pay fees for such services to the third party service provider. Customer has the final decision to purchase services through Varian third party service providers or to select another service provider outside of the Quotation and Varian does not make any recommendations to use third party service providers.
- 4.2 Changes to Third Party Service Providers by Customer. Customer shall have a one-time right to request in writing that a third party service provider be replaced with an alternate provider that is participating in the Program. If Varian, at its sole discretion, approves the request, Customer shall be subject to any related termination fees and additional costs incurred by Varian or the third party service provider and other terms and conditions indicated in the Confidential 2024-475036-1 September 17, 2024 Page 23 of 2507 HT Application Page 34 of 48

SOW and/or Quotation. Customer, the third party service provider, and if applicable, its subcontractors, shall have full responsibility for services as defined in the Quotation or SOW, as applicable, and Varian shall have no responsibility, obligation and/or liability whatsoever for those services. The third party service provider shall not be construed to be a subcontractor, employee, or agent of Varian. Varian will forward any requests for warranty work that it receives from Customer to the third party service provider. Except as otherwise provided in this section of the Quotation, the Terms and Conditions of Sale shall apply to this section just as it applies to all other parts of the Quotation.

4.3 **Changes to Third Party Service Providers by Varian.** Varian reserves the right, at its sole discretion, to change, from time to time, its list of third party providers that participate in the Program.

# 5. Performance of Services

All services shall be performed by Varian or the third-party service provider under permits, licenses, authority, supervision, and control of Customer and its staff, including licensed physicists, physicians, and other qualified healthcare professionals. Customer and its staff shall have the requisite permits (including applicable certificates of need), licenses, and authority to oversee and have such services performed on Customer's behalf.

# 6. Service Offerings

Varian reserves the right, at its sole discretion, to change the designated services which are offered under the Program at any time without prior notice. Varian will work with Customer to offer a mutually acceptable alternative or apply affected credits toward other offerings within the Program.



**Quotation Total** 

Quotation Total US \$3,794,491.00

## Divider III. Service Specific Criteria and Standards:

## 1. Describe the financial rationale for the proposed replacement equipment.

North Kansas City Hospital has started a new cancer treatment program that includes radiation oncology treatments. The linear accelerator is a necessary financial investment to support the radiation oncology program. North Kansas City Hospital has a strong, multi-year capital budget process to enable it to offer modern technology to patients. The replacement linear accelerator was included in this year's capital budget. North Kansas City Hospital participates in the Vizient Group Purchasing Organization (GPO) to secure favorable pricing on major capital purchases. In addition to the GPO, the North Kansas City Hospital Purchasing Department aggressively negotiates with vendors to secure acceptable pricing.

## 2. Document if the existing equipment has exceeded its useful life.

The existing linear accelerator is in working condition but is at the end of its useful life. Please see attached letter dated May 22, 2023 that North Kansas City Hospital received from the manufacturer, Varian, indicating that end of manufacturer support for the existing linear accelerator will be effective on May 1, 2025.

Because of the age of the existing linear accelerator it is also difficult to locate replacement parts, which could result in protracted downtime if parts are needed.

Healthcare audit depreciation standards published by the American Hospital Association describe the useful life of a linear accelerator as 7 years. The linear accelerator to be replaced is 11 years old.

#### 3. Describe the effect the replacement unit would have on quality of care.

The Varian TrueBeam replacement linear accelerator enables more precise treatment through advanced imaging and treatment technologies. The replacement linear accelerator enables less margins in radiation meaning the radiation treatment is more focused and radiation doses can be lower. This precision helps minimize damage to healthy tissues surrounding tumors.

## 4. Document if the existing equipment is in constant need of repair.

The existing linear accelerator has required many service calls in recent years. Please see attached service case history for 2022-2024 provided by the manufacturer, Varian, for the existing linear accelerator.

## 5. Document if the lease on the current unit has expired.

Not applicable. The existing linear accelerator is not leased.

## 6. Describe the technological advances provided by the new unit.

The Varian TrueBeam offers more precise and efficient treatment than the linear accelerator being replaced. The TrueBeam can treat multiple cancer locations at the same time. For example, in a cancer patient with metastases in multiple locations, those multiple sites of metastases can be treated at the same time, during one treatment session. The TrueBeam also supports a wide range of treatment modalities, including intensity-modulated radiation therapy (IMRT) and stereotactic body radiation therapy (SBRT), allowing for more tailored treatment plans.

## 7. Describe how patient satisfaction would be improved.

The Varian TrueBeam replacement linear accelerator will enable shorter treatment times, particularly for patients whose multiple sites of metastases will be able to be treated at the same time. Radiation therapy involves the immobilization of the patient, which can be uncomfortable for long treatment sessions. Shorter treatment sessions will lead to better patient compliance and comfort. Patients with metastases in multiple locations are more likely to accept and tolerate treatment given the ability to treat multiple sites of cancer at the same time. Patient positioning and motion management is improved in the new machine, resulting in greater comfort and less anxiety for patients.

#### 8. Describe how patient outcomes would be improved.

The Varian TrueBeam replacement unit enables more precise treatment as discussed above under Divider III, Question 3 and more efficient treatment of multiple sites of cancer as discussed above under Divider III, Question 6. These advances improve outcomes by more targeted treatment and greater patient acceptance of treatment of complex metastatic cancer.

## 9. Describe what impact the new unit would have on utilization.

The replacement linear accelerator will permit North Kansas City Hospital to treat additional cancer populations, and shorter treatment sessions may make more patients more accepting of treatment. We also expect utilization to increase as patient volumes increase in North Kansas City Hospital's new cancer treatment program.

#### 10. Describe any new capabilities that the new unit would provide.

The Varian TrueBeam will allow North Kansas City Hospital to offer advanced treatment types such as IMRT and SBRT. This capability will allow North Kansas City Hospital to offer treatment to new and additional cancer patient populations. The replacement Varian TrueBeam unit also has applications in cardiology to treat ventricular tachycardia and in neurology to treat trigeminal neuralgia with radiation therapy. Therefore, the replacement unit will permit North Kansas City Hospital to expand radiation therapy into disciplines besides only cancer.

## 11. By what percent will this replacement increase patient charges.

The replacement linear accelerator will not increase patient charges.

May 22, 2023

#### Dear Ashlyn Hull,

Over the past several decades, Clinac<sup>®</sup> radiotherapy systems have served the radiotherapy community well, earning a reputation for quality and reliability. However, due to component obsolescence and accelerating advances in technology, it has become necessary to discontinue support on devices installed on or before December 31, 2013. End of Support will be effective on May 1, 2025. This affects your Clinac **H295716.** 

This decision was driven by several factors including:

- Cybersecurity threats, which have become one of the top 5 trends in medical devices. Microsoft issued End of Life (EOL) notices for several operating systems. Because clinacs were built on these operating systems, they are more vulnerable to intrusions.
- Microsoft security patches and upgrades from other 3<sup>rd</sup> party vendors will no longer be compatible with Clinac infrastructure.
- Component obsolescence from sub-vendors impacts the ability to provide ongoing service.

Standard support for your Clinac will continue to be available through May 1, 2025, subject to replacement part availability. Prior to May 1, 2025, your local service manager will contact you to discuss a transition to a Limited Support program.

Limited Support contracts will have no guarantee of renewal and are conditional on parts availability. Renewal potential will be determined annually, based on availability of parts and feasibility of continued support. While the precise scope and cost of a Limited Support program is determined based on individual customer circumstances and equipment, these programs have the following conditions:

- Commercially reasonable efforts will be used to maintain existing systems, given the global limited supply on replacement parts.
- No uptime guarantees will be offered.
- Varian will seek to continue, but cannot guarantee, onsite, remote, Help Desk, and training support.
- There will be no software or hardware upgrades, excluding mandatory safety actions. As a result, there will be no guarantees of linear accelerator compatibility or interoperability with other software programs including OIS and treatment planning system.

The window between the End of Support announcement and the effective End of Support date is designed to give your institution the opportunity to create a thoughtful replacement plan for their existing systems. Over the coming months, your local Varian Representative, Matt Wilson, will

continue to work with you and your team to help create a fleet replacement plan to ensure minimum disruption to your clinic.

By signing the attached Return Response form, your institution acknowledges that you understand that your Clinac **H295716** will reach End of Support on May 1, 2025.

Thank you for your commitment to and trust in Varian. We look forward to continuing to collaborate with you as we work together to create a world without fear of cancer.

Sincerely,

Daniel Bilsky

Sr. Product Manager, Foundation Products

## **RETURN RESPONSE**

Subject

## **Clinac End of Support**

# THIS FORM TO BE COMPLETED BY THE AUTHORIZED SIGNATORY AND VARIAN REPRESENTATIVE

Clinac End of Support

Affected Product	Clinac
Product Code Serial Number	H295716
Customer/Site	North Kansas City Hospital
Varian Functional Location ID	H-NORTH KANSAS CITY -MO-US-001
I have received the Clinac End or reach end of support on May 1,	of Support letter and understand the Clinac system will 2025.
Customer Contact	Ashlyn Hull
Name of Authorized Signatory	
Authorized Signature	
Date	
Varian Representative Name	Matt Wilson
Varian Representative Signature	
Date	

Date: Oct 28, 2024

Case Number	<b>Date Created</b>	Status	Priority	Subject	Product Group	Serial Number
4796531	28-Oct-24	Work Order Initiated	P4	machine work order history	Trilogy	H295716
4786606	21-Oct-24	Action Required	Р3	ISO calibration on imaging arms	Trilogy	H295716
4784449	18-Oct-24	Work Order Initiated	P4	Imager Alignment + IsoCal	Trilogy	H295716
4780306	16-Oct-24	Work Order Initiated	P3	Field light is out	Trilogy	H295716
4772753	10-Oct-24	Work Order Initiated	P4	Beam Steering and Dose Calibration	Trilogy	H295716
4719098	30-Aug-24	Work Order Initiated	P4	Treat 13 MR4 upgrade	Trilogy	H295716
4712047	26-Aug-24	Closed	P4	PMP	Trilogy	H295716
4706333	21-Aug-24	Closed	Р3	Camera set screw missing	Trilogy	H295716
4678063	2-Aug-24	Closed	P2	Table moving	Trilogy	H295716
4670971	29-Jul-24	Closed	P2	Pendant table movement issues	Trilogy	H295716
4650616	15-Jul-24	Closed	P3	Key / Assembly Replacement	Trilogy	H295716
4619318	19-Jun-24	Closed	P2	hp fault	Trilogy	H295716
4606492	10-Jun-24	Closed	P2	YLD faults when using 6 stereotactic beam Unable to mode up a patient; electron field;	Trilogy	H295716
4583135	30-May-24	Closed	P1	invalid field	Trilogy	H295716
4554835	9-May-24	Closed	P4	pmp	Trilogy	H295716
4552099	7-May-24	Closed	P2	Need a replacement pendant ordered	Trilogy	H295716
4545845	2-May-24	Closed	Р3	Motion enable button sticking at the console	Trilogy	H295716
4542923	30-Apr-24		P2	Table long moving without using thumbwheel	Trilogy	H295716
4510687	5-Apr-24	Closed	P1	Lost console screen	Trilogy	H295716
4510465	5-Apr-24	Closed	P1	Unable to clear CDOS	Trilogy	H295716
4500953	28-Mar-24		P2	Light field radiation coincidence is off on the Y jaw side	Trilogy	H295716
4500309	28-Mar-24	Closed	P2	Aria upgrade check	Trilogy	H295716
4438550	13-Feb-24	Closed	P3	Requesting 2 new pendants	Trilogy	H295716

4416998	29-Jan-24	Closed	P3	Foil and carriage fault	Trilogy	H295716
4413188	25-Jan-24	Closed	P4	pmp	Trilogy	H295716
4408760	23-Jan-24	Closed	P1	Foil and Carriage Fault -can not clear	Trilogy	H295716
4389234	9-Jan-24	Closed	P1	Unable to move gantry; HWFA	Trilogy	H295716
4370395	21-Dec-23	Closed	P2	field light went out / limited treatment	Trilogy	H295716
4365611	18-Dec-23	Closed	P2	Imaging pendant working intermittently.	Trilogy	H295716
4361246	14-Dec-23	Closed	P3	Imaging arm pendant works intermittently	Trilogy	H295716
4357415	12-Dec-23	Closed	P1	HVOC Fault	Trilogy	H295716
4312287	8-Nov-23	Closed	P2	Cross hair is not centered/X1 jaw is off over 1mm	Trilogy	H295716
4304428	2-Nov-23	Closed	P1	Machine beeping; nothing will move	Trilogy	H295716
4300121	30-Oct-23	Closed	P1	gantry stopped at 220/ motion fault/ CVRT position off by 2.5mm	Trilogy	H295716
4290741	23-Oct-23	Closed	Р3	X1 jaw needs to be calibrated	Trilogy	H295716
4280988	16-Oct-23	Closed	P3	right side pendant as your facing gantry giving errors	Trilogy	H295716
4236092	12-Sep-23	Assigned	P1	MLC init faiulure / baud break failure	Trilogy	H295716
4234980	11-Sep-23	Closed	P2	Field light is out	Trilogy	H295716
4234710	11-Sep-23	Closed	P1	SRBT patient on table-Comm error during treating	Trilogy	H295716
4227753	5-Sep-23		Р3	Loose hardware rolling around and Imaging pendant not displaying proper characters	Trilogy	H295716
4187162	8-Aug-23	Closed	P2	KVS arm not driving to correct position	Trilogy	H295716
4183343	6-Aug-23		P1	Need password and assistance getting to main screen after console shut down	Trilogy	H295716
4155126	17-Jul-23	Closed	P4	Past Due PM	Trilogy	H295716
4125279	26-Jun-23	Closed	P2	Field light out	Trilogy	H295716
4093104	2-Jun-23	Closed	P2	EXQ1 Fault 16E Energy will not pass QA	Trilogy	H295716
4092560	2-Jun-23	Closed	P1	MV arm stuck out, not calibrated	Trilogy	H295716

4091186	1-Jun-23	Closed	P1	Intermittent GFils during warmup	Trilogy	H295716
4050797	28-Apr-23	Closed	P4	backordered parts consumption	Trilogy	H295716
4042280	23-Apr-23	Closed	P2	key switch hard to move	Trilogy	H295716
4036062	18-Apr-23	Closed	P3	Isocenter check	Trilogy	H295716
4031291	13-Apr-23	Closed	P3	Need a replacement pendant	Trilogy	H295716
4026146	10-Apr-23	Closed	Р3	Field light is out	Trilogy	H295716
				bumped KV source arm, now it is beeping		
4021628	5-Apr-23	Closed	P1	loudly	Trilogy	H295716
4021092	5-Apr-23	Closed	P2	Accy Mount difficult to mount	Trilogy	H295716
4018363	3-Apr-23	Closed	P4	requesting to order hand pendant	Trilogy	H295716
4018297	3-Apr-23	Closed	P2	SRS cone is not centered	Trilogy	H295716
4004750	23-Mar-23	Closed	Р3	4D keyboard INOP.	Trilogy	H295716
3993988	15-Mar-23	Closed	Р3	SRS cone is not centered	Trilogy	H295716
3979391	3-Mar-23	Closed	Р3	ENSW on 6x energy in during QA	Trilogy	H295716
3964098	20-Feb-23	Closed	Р3	gantry field light is dim	Trilogy	H295716
				Intermittent connections between Calypso		
3960493	16-Feb-23	Closed	P2	and the Treat WS.	Trilogy	H295716
				Y2 Blade sticks, also repeat issue for Axis		
3949556	8-Feb-23	Closed	P2	mismatch for KV arm.	Trilogy	H295716
3949458	8-Feb-23	Closed	P4	Parts Received	Trilogy	H295716
				KV imaging VERT/LNG if off causing Winston		
3948438	7-Feb-23	Closed	P2	Lutz test to fails.	Trilogy	H295716
3939039	31-Jan-23	Closed	P2	OBI issues	Trilogy	H295716
				OBI - option to reset multiplicity is not there		
3918791	13-Jan-23	Closed	P2	anymore	Trilogy	H295716
3884831	13-Dec-22	Closed	Р3	Backorder Parts Received	Trilogy	H295716
3882687	12-Dec-22	Closed	P3	field light is dim	Trilogy	H295716
				Crosshair needs replacement / X Jaws need		
3866230	28-Nov-22	Closed	P2	alignment	Trilogy	H295716
3852948	16-Nov-22	Closed	P2	MV ISO needs to be verified	Trilogy	H295716
				unable to bring KV arms our for CBCT; VOBI		
3847439	11-Nov-22	Closed	Р3	error - movement failed	Trilogy	H295716

3845824	10-Nov-22	Closed	P1	MLC fault, unable to clear	Trilogy	H295716
3844530	9-Nov-22	Closed	P2	Yield deviation faults.	Trilogy	H295716
3841446	8-Nov-22	Closed	P4	PMP	Trilogy	H295716
3834086	3-Nov-22	Closed	P2	MLC B38 secondary interlocks	Trilogy	H295716
				YIELD Deviation Fault when treating patient		
3823723	26-Oct-22	Closed	Р3	with couch kick	Trilogy	H295716
3815918	20-Oct-22	Closed	Р3	OBI Y2 blade getting stuck	Trilogy	H295716
				OBI blade 1,2 errors / KV detector not level /		
				KV source not level during CBCT in the out		
3812648	18-Oct-22	Closed	P2	position	Trilogy	H295716
				Wants to know when the system is due for a		
3812564	18-Oct-22	Closed	P4	PMI	Trilogy	H295716
3811003	17-Oct-22	Closed	Р3	MLC init failure/2ndary feedback	Trilogy	H295716
3805722	12-Oct-22	Closed	Р3	MLC leaf A38/B38 stalled	Trilogy	H295716
				Yield Deviation Fault occurs @ Gantry 150		
3794020	3-Oct-22	Closed	P2	degrees	Trilogy	H295716
3793699	3-Oct-22	Closed	P4	PM Past Due	Trilogy	H295716
3753590	31-Aug-22	Closed	Р3	Iso calibration is off by almost 1mm.	Trilogy	H295716
3743920	25-Aug-22	Closed	P1	X1 is climbing error again	Trilogy	H295716
3739041	22-Aug-22	Closed	P1	HWFA will not clear	Trilogy	H295716
3737748	20-Aug-22	Closed	P2	Combo Workstation Install	Trilogy	H295716
3731348	15-Aug-22	Closed	P4	needs data	Trilogy	H295716
3710089	27-Jul-22	Closed	P4	Parts Only WO - OBI Repair Parts	Trilogy	H295716
3706742	25-Jul-22	Closed	P1	OBI FIL fault	Trilogy	H295716
				ISO Verification needed. Error seen during		
3677056	28-Jun-22	Closed	P2	CBCT QA testing	Trilogy	H295716
3658286	13-Jun-22	Closed	P1	CDOS error unable to clear	Trilogy	H295716
3654766	9-Jun-22	Closed	P1	shutdown with an error	Trilogy	H295716
3654702	9-Jun-22	Closed	P1	Unable to move gantry	Trilogy	H295716
3653877	8-Jun-22	Closed	P3	Field light out / needs pendant replaced	Trilogy	H295716
3653211	8-Jun-22		P1	ADI com and ADI Off error will not clear	Trilogy	H295716

				XI, X2 jaw movement- from one field to		
3650185	6-Jun-22	Closed	Р3	another the field size changes	Trilogy	H295716
3638354	25-May-22	Closed	P2	cdos	Trilogy	H295716
				Unable to clear CDOS after disconnecting		
3634284	23-May-22	Closed	P1	Calypso	Trilogy	H295716
3617309	9-May-22	Closed	P1	yield deviation error	Trilogy	H295716
3616962	9-May-22	Closed	P1	Key on DKB is hard to turn	Trilogy	H295716
3610590	3-May-22	Closed	Р3	yield errors with 6X	Trilogy	H295716
				Machine was in stand by when she got to site when turning the key it kicks her back to		
3608597	2-May-22	Closed	P1	Standby	Trilogy	H295716
3596261	20-Apr-22	Closed	P2	CBCT interruptions, on going issue	Trilogy	H295716
				B43 secondary interlock, 3 time trying to		
3594914	19-Apr-22	Closed	P1	initialize	Trilogy	H295716
3589972	14-Apr-22	Closed	P4	Tolerance tables and Table movement	Trilogy	H295716
3588283	13-Apr-22	Closed	P2	CBCT Motion Faults	Trilogy	H295716
				Would like to disable auto couch movement		
3587208	12-Apr-22	Closed	Р3	from pendant on Clinac	Trilogy	H295716
				Unable to get machine back up possible bad		
3578287	5-Apr-22	Closed	P1	breaker	Trilogy	H295716
3563697	23-Mar-22	Closed	P1	KFil Error - 4D Will Not Come Back On	Trilogy	H295716
3557030	17-Mar-22	Closed	P3	reporting - recurring more frequent machine overheating relating to 03510273	Trilogy	H295716
3555188	16-Mar-22	Closed	P1	CBCT blade issue - needs to be recalibrated	Trilogy	H295716
				Calypso issue started last week, getting lost connection with Clinac/Treat during set up		
3552260	14-Mar-22	Closed	P2	or treatment.	Trilogy	H295716
				recurring OBI-Non CBCT motion, gets kicks out of CBCT and shuts down / see 03510939-		
3550484	11-Mar-22	Closed	P2	03521125	Trilogy	H295716

3547527	10-Mar-22	Closed	P2	cbct, fan noise, water temp	Trilogy	H295716
3522022	16-Feb-22	Closed	P3	machine overheating	Trilogy	H295716
3520325	15-Feb-22	Closed	P2	mlc, OBI arms, and water issues	Trilogy	H295716
3519139	14-Feb-22	Closed	P2	B38 primary secondary interlock.	Trilogy	H295716
3519020	14-Feb-22	Work Order Initiated	P4	Parts Only WO -	Trilogy	H295716
3510273	7-Feb-22	Closed	Р3	Machine overheating continues	Trilogy	H295716
3500093	28-Jan-22	Closed	P1	Machine overheated	Trilogy	H295716
3492826	23-Jan-22	Closed	P4	PMI Supplies	Trilogy	H295716
3491659	21-Jan-22	Closed	P4	water pressure running high at 85	Trilogy	H295716
3470261	4-Jan-22	Work Order Initiated	P3	Cooling Issues	Trilogy	H295716