



RO-ILS and SOFI

The image shows two screenshots. The left one is the RO-ILS (Radiation Oncology Incident Learning System) interface, featuring a 'SUBMIT EVENT' button and a 'Report an Incident' section. The right one is the SOFI (Safety Opportunities for Improvement) interface, which includes a 'Safety Opportunities for Improvement' banner and a grid of categories such as Patient-Centered Events, Patient Care, Facility & Equipment Issues, and Patient Management & Records.



RO-ILS and SOFI Incident Reporting Policy

This block contains a screenshot of the RO-ILS system on the left and a document titled 'RO-ILS and SOFI INCIDENT REPORTING POLICY' on the right. The document outlines the purpose of the incident reporting system, the types of incidents that should be reported, and the responsibilities of staff. It includes sections for 'Incident Reporting System (IRS)', 'Reporting Process', and 'Incident Classification'. Red arrows point from the system interface to the policy document.



Two Weekly Meetings
12-16 attendees, 1.5 hours total
2 Administrative Assistants

- Review Incidents
- Assign Champions
- Review Follow-Ups
- Review QI Projects
- Review A3 Projects
- Review APEX Accreditation Progress



Quality Working Group Meeting Agenda (Weekly)

QW# - 7/20/17	QSOC MEETING AGENDA - 7/20/17	
A3 Updates	CT Kaizen – In Testing Stages CT Sim Ordering Workflow Demo Potential A3 on clinic leveling A3 Root Cause Breakage and Leak Prevention A3 Fiducials CT Sim Pt. Instructions Rapid Process Lean Workshop- Cohort 1 RFI Lean Workshop- Cohort 2 Starts 7/14 A4- MR Fusion-(Event10059)	Presenting at QSOC, feedback from MDs on Huddle started 7/13; Clinic Fac 8/9 Add to A3 To Start Add to A3 To Start Add to A3 In Progress Creating A3 Sign-ups available CNS Group - Root Cause Analysis
APEX Accreditation Processes	Self-Assessment – Documentation Uploads Complete Policy Stat: Target Start date – August	Self-Assessment submitted –In Progress Status: Under Review Organize structure of Dept. policies & Upload
New Topics	• Varian Professional Services Workflow Assessment September 12 th – Review Agenda & Participation • IGRT Shift Policy- review updates	
Follow Ups	Good Catch of the month QSOC Recognition Photos include in QSOC meeting SAMs credits for Dept talks-CAMPEP/AAMA CME accreditation credits Airo CT- Imaging Issues MR WW construction SM Linac construction	Start including slides of Photos in QSOC presentations of staff that have completed A3s. Follow up with CME office needed 2018 Shielding incomplete eta-Aug/Sept. Weekend construction due to surgery center SQFI review process
ROILS/SQFI Committee	Review Submission Instructions SQFI Review Processes 6 Mo Rolling Closure Rate	
REMINDERS	QSOC Agenda	

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Quality and Safety Oversight Committee (QSOC) Meeting Agenda (Monthly)

- ❖ Dashboard Metrics (10) – Dr. Agazaryan
- ❖ Monthly Incident Review (5) – Dr. Beron
- ❖ Physics Billing Updates (10) – Phil Chow, MS
- ❖ CT Sim Ordering Go-Live Updates (10) – Walter Chin, RN
- ❖ APEX Updates (5) – Dr. Agazaryan
- ❖ File Server Updates (10) – Kathy Rose



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UCLA Health Quality Council Presentation (Yearly)

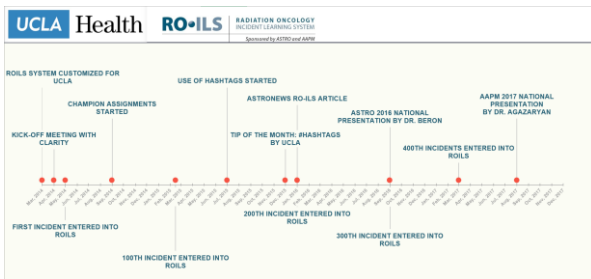
QUALITY COUNCIL FY 18 MEETING SCHEDULE

3RD TUESDAY OF THE MONTH FROM 4-5:30PM - LOCATION TBD

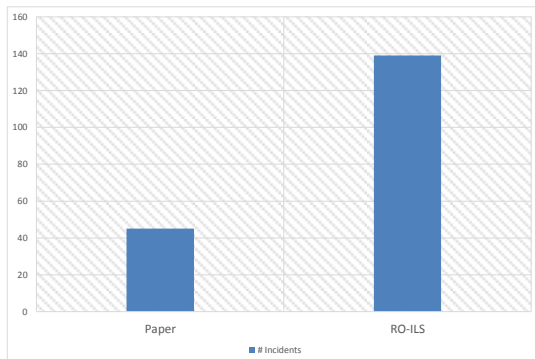
Month	Meeting Date	Topic
JULY	NO MEETING	
AUGUST	NO MEETING	
SEPTEMBER	TUES, SEPT 12, 2017	NOVEMBER REVIEW PATHOLOGY
OCTOBER	TUES, OCT 17, 2017	AMBULATORY RADIOLOGICAL SERVICES ORTHOPAEDIC SURGERY
NOVEMBER	TUES, NOV 14, 2017	DEPT OF SURGERY GENERAL SURGERY PLASTIC & RECONSTRUCTIVE UROLOGY THORACIC CARDIAC
DECEMBER	TUES, DEC 12, 2017	UROLOGY OPHTHALMOLOGY ANESTHESIOLOGY
JANUARY	TUES, JAN 16, 2018	PEDIATRIC PEDIATRIC OPHTHALMOLOGY PEDIATRIC SURGERY
FEBRUARY	TUES, FEB 20, 2018	DEPARTMENT OF MEDICINE GASTROENTEROLOGY (GASTROGASTRO) DIGESTIVE DISEASES, ENDOCRINOLOGY GENERAL INTERNAL MEDICINE GERIATRICS, HEMATOLOGY/ONCOLOGY HOSPITAL MEDICINE, INFECTIOUS DISEASES NEPHROLOGY, CRITICAL CARE/PALMARIARY RHEUMATOLOGY
MARCH	TUES, MAR 20, 2018	DEPT OF SURGERY LIVER & PANCREAS TRANSPLANT SURGICAL ONCOLOGY HEAD & NECK SURGERY
APRIL	TUES, APR 17, 2018	EMERGENCY DEPT FAMILY MEDICINE NEURO SURGERY
MAY	TUES, MAY 22, 2018	NEUROLOGY PSYCHIATRY
JUNE	TUES, JUN 19, 2018	UROLOGY NUCLEAR MEDICINE



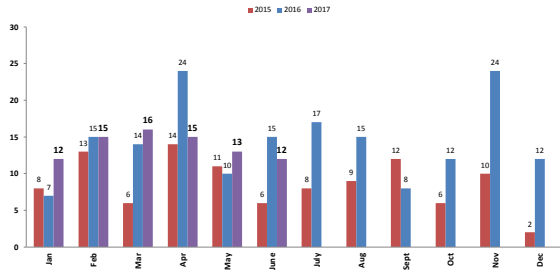
RO-ILS Milestones



Number of Incidents Per Year

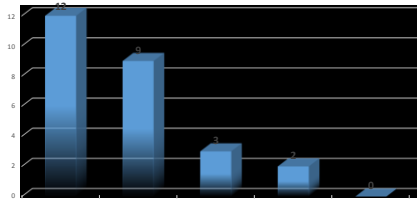


**ROILS Event Reporting Analysis
2015 - 2017**



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**QUALITY DASHBOARD
MONTHLY INCIDENTS (JUNE 2017)**

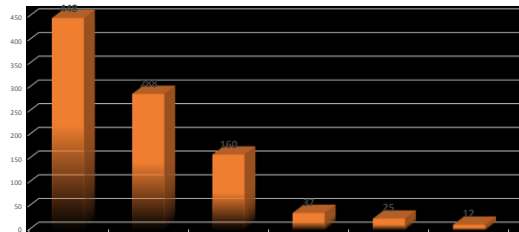


Quality Dashboard
Monthly Incidents (June 2017)



RO-ILS Incidents and A3 Projects

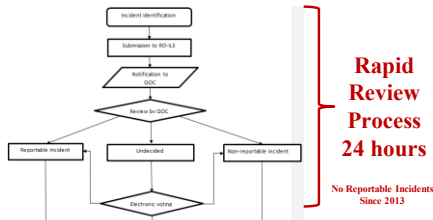
**QUALITY DASHBOARD
ALL INCIDENTS TO DATE**



Quality Dashboard
All Incidents To Date



Incident Review and Quality Improvement Process



More Efficient and Quantitative Processes



A3 Initiatives

Electron calculation sheet modification	Physics	Improved worksheet regarding electron calculation to reduce calculation errors.
Electronic check-in for Treatment	Physics	Implemented card scanner to alert treatment machines of patient arrival to improve patient experience
Eye plaque date template	Physics	Implemented a template for new eye plaque procedure to specify details of service to improve efficiency
Front Office insurance	Administration	Implemented new template to improve insurance authorizations to improve efficiency
Front Office scheduling	Administration	Implemented new scheduling system to improve efficiency
HDR channel	Therapist	New process improving channel connection for HDR brachytherapy
Integrating blood registry sampling into standard nursing workflow	Research	Implemented policy and procedure that increased blood sample collection into registry by 3 – 8 times.
Patient transfers	Administration	Implemented new policy to improve



ROI-LS Helped

Discover Unanticipated Failure Modes

Communicate Best Practices

Make Processes Efficient

Optimize Continuous Quality Improvement Process

Implement Practice Improvements



Quality Improvement and A3 Jackets



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Quality and Safety Administrative Support



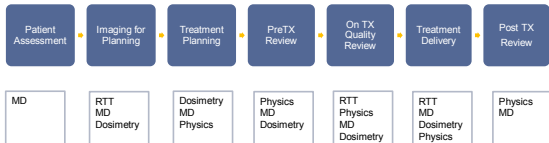
←
Julia Melkonian
Administrative Analyst

→
Kathy Rose
Executive Assistant to the Chair
Educational Programs Administrator

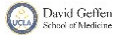
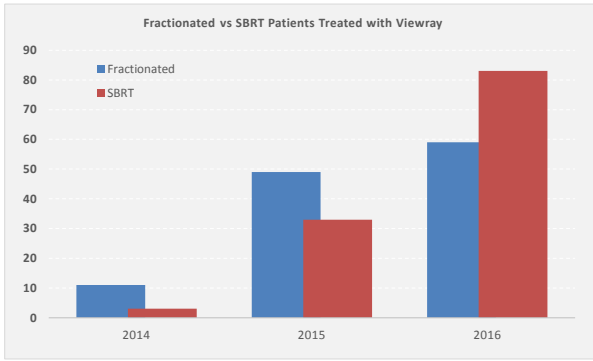


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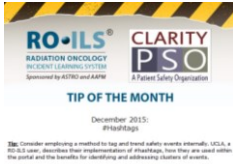
Each Workflow Step Requires People with Expertise



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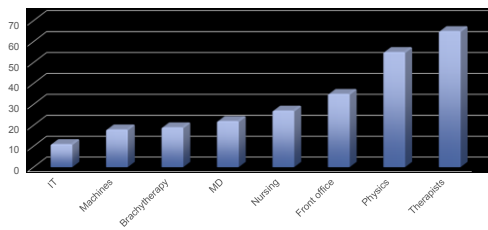
Consider employing a method to log and trend safety events externally. UCLA is a ROSA user. Describe their implementation of #tags, how they are used within the portal and the benefits for identifying and addressing clusters of events.

Table 1. Incident Categories and Nomenclature

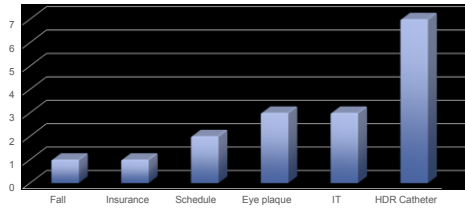
Primary category	Secondary Category (No.)*	Description of Event
#Administration	#Schedule (1)	Scheduling error
	#CC (5)	EMR related incident
	#Channel (3)	EMR Channel incident
	#Patient (2)	Incident affecting care of hospitalized patient
	#Policy (2)	Calculation error
#Front Office	#Policy procedure (2)	Policy and procedure not followed or in place
	#Schedule (1)	Scheduling error
	#Employee (1)	Policy and procedure not followed or in place
	#CC (1)	EMR related incident
	#Communication (1)	Miscommunication causing delay in patient care
#Information	#Patient (1)	Incident affecting care of hospitalized patient
	#Insurance (2)	Insurance authorization delay
	#Patient experience (3)	Incident affecting patient experience
	#Schedule (7)	Scheduling error
	#Simulation (2)	Incident causing delay in patient simulation
#Technology/IT	#Aria (1)	Record and verify nonoperational
	#Support (1)	Show IT support affecting workflow
#Machines	#Mechanical (4)	Incidents related to mechanical issues
	#Partial treatment (3)	Incidents resulting in a partial treatment
#Nursing	#Communication (1)	Miscommunication causing delay in patient care
	#Education (1)	Patient education not performed
	#Equipment (1)	Transfer machine malfunction
	#Equipment (2)	Incident affecting care of hospitalized patient
	#Medication (2)	Incident related to medication delivery and/or allergy status
	#Patient Experience (2)	Incident affecting patient experience
	#Procedure policy (1)	Policy and procedure not followed or in place
#Physics	#Schedule (1)	Scheduling error
	#Simulation (1)	Incident causing delay in patient simulation
	#Erector (5)	Incident related to Erector operation
	#Naming (9)	Anonymous naming procedure
	#Planning (6)	Involving adaptive planning/planning errors
	#Policy procedure (1)	Policy and procedure not followed or in place
	#Second check (4)	Second check did not discover error
#Physicians	#Shift (7)	Error regarding shift order, length, or direction
	#TBI (1)	TBI machine failure
	#Worksheet (2)	Calculation error
	#Communication (4)	Miscommunication causing delay in patient care
	#Naming (1)	Anonymous naming procedure
#Therapists	#Orders (6)	Incorrect order placement
	#Procedure policy (1)	Policy and procedure not followed or in place
	#Schedule (2)	Scheduling error
	#Simulation (4)	Incident causing delay in patient simulation



Primary Incident Category in RO-ILS



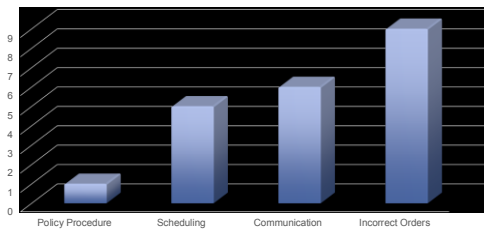
Brachytherapy - Secondary Category of Incidents





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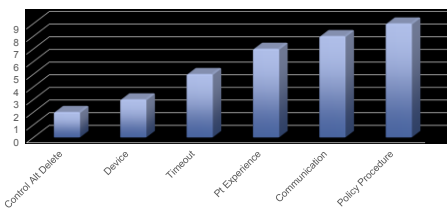
Physician - Secondary Category of Incidents





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Therapist - Secondary Category of Incidents





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287 Suggestions for improvement

Documentation

Communication

Time Out Processes

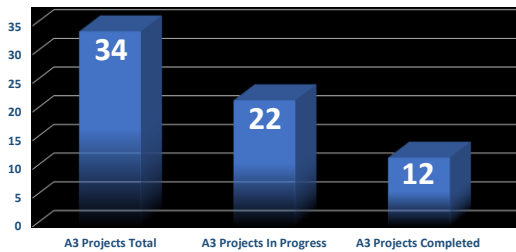
Policy and Procedure Updates and Changes

Initiation of A3 projects



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QUALITY DASHBOARD A3 PROJECTS





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A3 PROJECT

Clinical Treatment Planning (CTP) Directives

Completeness Project



Project Lead
James Lamb, Ph.D.
Assistant Professor of Radiation Oncology



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CTP Completeness Project

Introduction:

- Verifying consistency of the patient's treatment with the Clinical Treatment Plan (CTP) document is an essential part of the treatment quality control performed by medical physicists, radiation therapists, and other staff members. It has been anecdotally observed that the CTP form is in error (incorrectly filled out or incomplete) at the time of treatment plan approval. CTP form errors hinder quality control checks and increase the probability of a treatment error. We attempted to quantify the frequency of CTP form errors at the time of plan approval and make recommendations on how to reduce the error rate.

Methods:

- We asked all physicists and dosimetrists to report instances of CTP form errors at the time of second check. Data was collected for several quarters.

CTP Co

Introduction:

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Methods:

- We asked all physicists and dosimetrists to report instances of CTP form errors at the time of second check. Data was collected for several quarters.

CTP Completeness Project

Recommended Actions:

- The CTP form should be created in ARIA at the time of simulation.
- The attending physician should fill out the CTP at the time of contour approval to the extent possible, with the understanding that the dose prescription, dose volume constraints, technique, imaging, and other components of the treatment plan, may change during the planning process.
- The attending physician should review the CTP with the planner at the time of plan approval and correct the form if necessary.

PROJECT

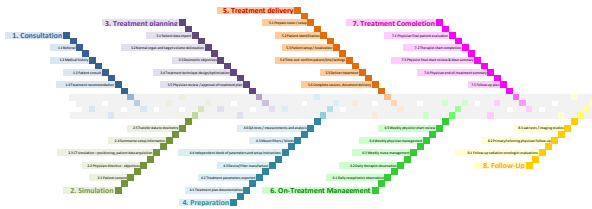
Timeliness of Patient Treatments



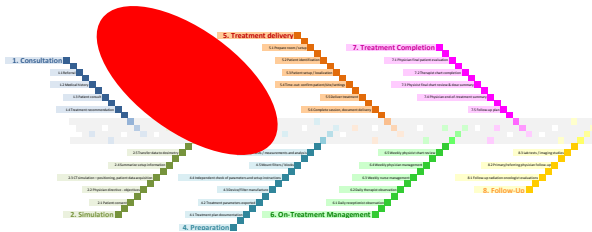
Project Leads
Phillip Chow, M.S., Medical Physicist
Nzhde Agazaryan, Ph.D., Professor



Fishbone Diagram of Patient Care Pathway



Fishbone Diagram of Patient Care Pathway



Database for Tracking Treatment Planning Process MOC Project

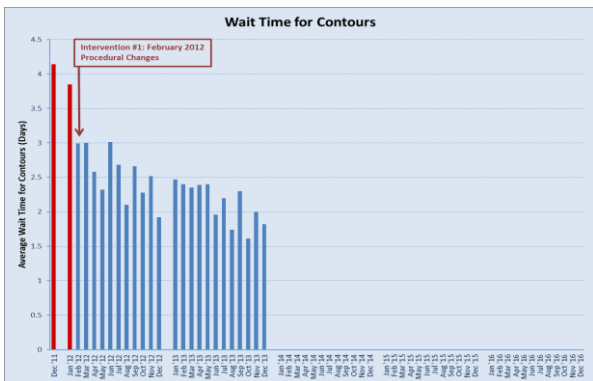


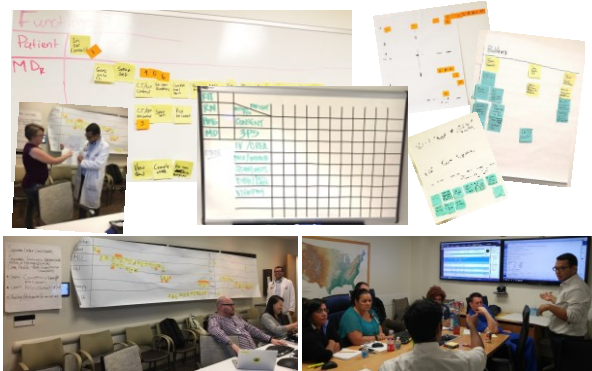
Database for Tracking Treatment Planning Process MOC Project

ID	Status	ID	Status
1	Patient Consulted	14	Neurosurgery Plan approval needed
2	Simulation Pending	15	Plan approved
3	Simulation Complete	16	QA Pending
4	Pending Insurance	17	Treatment to be Scheduled
5	CT Imported; waiting for MR	18	Planning In-progress
6	MR Imported; waiting for CT	19	On Hold
7	Contours Needed	20	On Treatment
8	Contours ready for review	21	Treatment Complete
9	Rad Onc Contour approval needed	22	Complete, Not Treated
10	Neuro Contour approval needed	23	Second Check Needed
11	Contours Approved	24	Authorization Pending
12	Plan Approval Needed		
13	Rad Onc Plan approval needed		



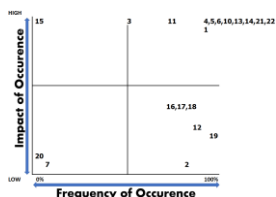
Patient Simulation to Contours Approved Intervention, Improvement, Sustainability and Continuous Improvement





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Opportunities



Opportunity	Impact	Frequency
3. Diagnosis change-no code	HIGH	HIGH
4. Rushing	HIGH	HIGH
5. Not able to update form	HIGH	HIGH
6. Incorrect info	HIGH	HIGH
10. Order is unclear	HIGH	HIGH
11. Authorization not cleared	HIGH	HIGH
13. Multiple sites on one order	HIGH	HIGH
14. Clarity on intentions	HIGH	HIGH
21. CT Order Form incorrect	HIGH	HIGH
22. MD not available	HIGH	HIGH
3. CT Form not mirror image	HIGH	MID
15. Level Loading Machines	HIGH	LOW
2. Multiple sites on one order	LOW	HIGH
12. Patients being scheduled when MD not available	LOW	HIGH
16. IV contrast not requested on RT order	LOW	HIGH
17. Labs not ordered	LOW	HIGH
18. Missed pregnancy test	LOW	HIGH
19. Consents granularity	LOW	HIGH
7. AVS not editable if done by attending	LOW	LOW
20. Time-outs for inpatient	LOW	LOW



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CURRENT ORDER FORM

or will the patient be treated the day of simulation verification? (Yes/No/Ask/Cancel/Verify)

1. Date of Simulation: _____

2. Date of Simulation: _____

3. Date of Simulation: _____

4. Date of Simulation: _____

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Future State (July) – 2 Step Process Scheduling and Setup Separated Went from 38 Questions to 16 Questions

RAD ONC CT SIM ORDER WITH CONTRAST FOR FRONT OFFICE SCHEDULING

PATIENT: Bin Zoumanzar
MRN: 446463
DOB: 12/11/1968

1. Survey Type: (Survey Type 28243)

2. Treatment Site: (no)

3. Multiple Sites Simulation? (YES NO 23722: "no")

4. In a separate simulation verification visit requested, or will the patient be treated the day of simulation verification? (RAD ONC SIM VISIT_AHIS_UCLA 28201)

5. Goal/Start Time: (RAD ONC goal start 28153)

6. Is a ViewRay Simulation being requested? (YES NO 23722: "no")

7. Schedule CT Sim at: (RAD ONC Location_UCLA 28744: "UCLA Westwood")

8. MRI requested? (YES NO 23722: "no")

9. Requested: (YES NO 23722: "no")

10. Last Lab: Lab Results

Component Value Date
CREAT 0.7 12/12/2018

11. IV Contrast: (RAD ONC Contrast 28110)

12. Oral Contrast: (YES NO 23722: "no")

Additional Comments

RAD ONC CT SIM INSTRUCTIONS

PATIENT: Bin Zoumanzar
MRN: 446463
DOB: 12/11/1968

Patient Setup and SIM Instructions

1. Treatment Site: (no)

2. Is a separate simulation being requested? (YES NO 23722: "no")

3. In a separate simulation verification visit requested, or will the patient be treated the day of simulation verification? (RAD ONC SIM VISIT_AHIS_UCLA 28201)

4. Goal/Start Time: (RAD ONC goal start 28153)

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8. Requested: (YES NO 23722: "no")

9. Last Lab: Lab Results

10. Patient Instructions: (RAD ONC Patient Instructions_UCLA 28744)

11. IV Contrast: (RAD ONC Contrast 28110)

12. Oral Contrast: (YES NO 23722: "no")

13. Additional Comments

14. Patient Instructions: (RAD ONC Patient Instructions_UCLA 28744)

15. IV Contrast: (RAD ONC Contrast 28110)

16. Oral Contrast: (YES NO 23722: "no")

17. Additional Comments

18. Patient Instructions: (RAD ONC Patient Instructions_UCLA 28744)

19. IV Contrast: (RAD ONC Contrast 28110)

20. Oral Contrast: (YES NO 23722: "no")

21. Additional Comments



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Nzhde Agazaryan, PhD, DABR
Professor of Clinical Radiation Oncology
Professor of Physics and Biology in Medicine
Chief of Clinical Medical Physics
UCLA Health System Quality Officer

**The UCLA Experience with RO-ILS:
Developing a Culture of Safety, Processes, and Metrics**

