



Clinical
Application
Training

Customer Briefing

GENERAL INFORMATION

This briefing helps you to prepare the clinic for the C-RAD clinical application training. Please have a look at the different training modules-and their specific preparations. The patient treatment time slots found in the timetables only applies for the duration of the training and shall be scheduled accordingly to assure optimal training outcome.

THE USER IS REQUIRED TO PREPARE THE FOLLOWING BEFORE CLINICAL TRAINING:

- If you are not yet in clinical operation, turn on all C-RAD products and computers to check its status and full functionality at least 1 week prior to the training. In case of any irregularities, please contact the trainer immediately.
- Fill out the “Pre-Application Training” form provided by C-RAD to communicate the clinical needs and expectations for the training
- Export your patients (structure set and treatment plan) from your treatment planning system (TPS) to the c4D import directory
- Divide attendees (Therapists, Physicists, Physicians) into groups if necessary (max. group size of 10 participants recommended)
- Block time on CT- and treatment room according to schedule and size of groups (find timetables for training modules below)

WHICH PATIENTS ARE SUITABLE FOR THE C-RAD TRAINING?

Please consider the following recommendations to achieve optimal training outcome:

- Choose a compliant patient (e.g. breast cancer) which is at the beginning of the radiation treatment or hasn't yet started
- If no breast cancer patient is available, patient with chest or abdominal treatment sites are recommended
- Prepare applicable treatment imaging for the Catalyst session (kV/kV or CBCT)

AVAILABLE TRAINING MODULES

The C-RAD application training depends on the installed C-RAD systems and licenses. Please check with your trainer which modules apply:

- Clinical session Sentinel *sRespiration*
- Clinical session Catalyst *cPosition & cMotion*
- Clinical session Catalyst *cRespiration*
- Clinical session Catalyst *cSRS*
- c4D Advanced & Administrator session

INTRODUCTION PRESENTATION

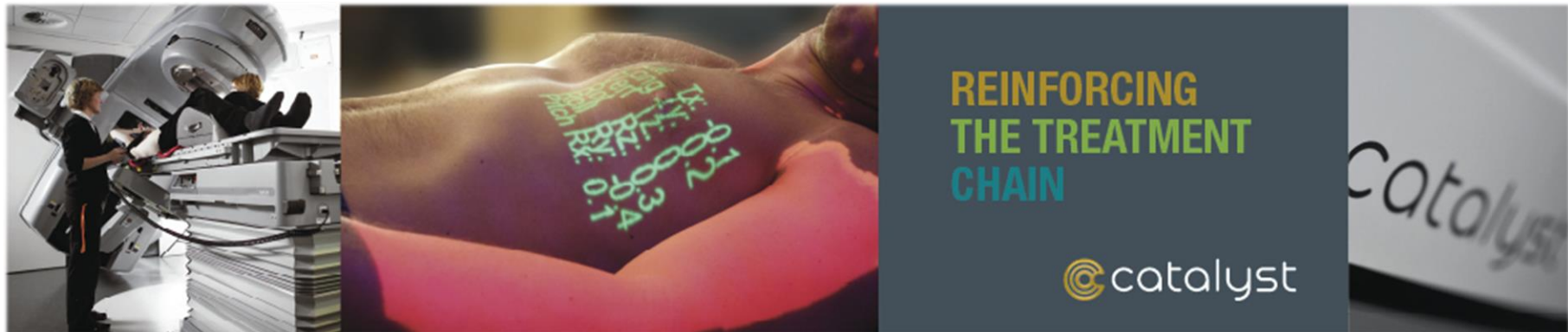
The training begins with an introduction presentation. The trainer provides an overview of the C-RAD workflow and treatment chain, from the CT (Sentinel) to the treatment room (Catalyst). It also shows the training structures and gives the clinical staff the chance to raise questions to which the trainer can later respond to in detail during the training.

WHO SHOULD ATTEND:

- Therapists
- Physicists
- Physicians

PREPARATIONS:

- Conference room with projector or monitor for PowerPoint presentation
- Duration of presentation is about 30min plus 15min extra for Q&A



CLINICAL SESSION SENTINEL *s*RESPIRATION

This session covers *sRespiration* with Sentinel clinical mode and is meant for a maximum group of 10 participants. The timetable is applicable for one group. Please look for the needed preparations.



WHO SHOULD ATTEND:

- Therapists
- Physicists
- Physicians can attend to the clinical session with the patient

PREPARATIONS:

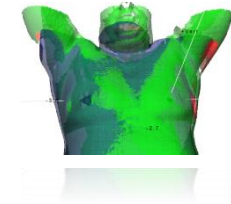
- Prepare daily check phantom and weights for the Sentinel couch calibration procedure. Weights can be lead blocks, water canisters or similar. An average patient (~70kg) equivalent couch sag shall be simulated.
- Prepare and charge the visual coaching goggles/tablet

TOPICS:

- QAs: daily check and calibration mode, Isocenter adjustment
- Create or select a patient
- Adjusting scan volume
- Optimizing camera settings
- Capture a reference image (Positioning reference)
- Prospective (Coached deep inspiration)
- Retrospective (Free breathing)
- Workflow with CT acquisition (.vxp export, laser offset, etc.)

TRAINING TIMETABLE:

	Event	Location	Duration	Attendees
Practice (no patients)	Sentinel QA	CT	1h	Physicists
	Sentinel cRespiration	CT	2h	RTTs, Physicists
Go Live (with patients)	Sentinel clinical usage (Gating Patients e.g. left sided Breast Cancer)	CT	1h / patient	RTTs, Physicists, Physicians



CLINICAL SESSION CATALYST *cPosition* & *cMotion*

This session covers the Catalyst clinical mode for *cPosition* and *cMotion* and is intended for a group of maximum 10 participants. The topics and schedule apply for each group repeatedly. Please look for preparations needed.

WHO SHOULD ATTEND:

- Therapists
- Physicists
- Physicians can attend to the clinical session with the patient

TOPICS:

- Daily Check QA and RQA
- Select patient, manually or R&V synchronized
- Optimize settings, e.g. scan volume and camera settings
- *cPosition*: patient setup, adjust for posture error and whole-body translation, interpreting color map projection
- *cMotion*: intrafractional motion monitoring, couch rotations
- Workflow SIGRT

PREPARATIONS:

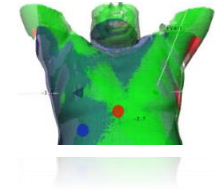
- Daily check phantom
- RQA phantom (Penta Guide) plus according plan on LINAC
- Prepare test patient/plan which can be imported to c4D software and treated on Linac. Schedule the test patient/plan if necessary, in your R&V system.

TRAINING TIMETABLE:

	Event	Location	Duration	Attendees
Practice (no patients)	Catalyst Daily QA / Routine QA	LINAC	1h	RTTs, Physicists
	Catalyst <i>cPosition</i> & <i>cMotion</i>	LINAC	2h	RTTs, Physicists
Go Live (with patients)	Catalyst clinical session (Non-Gated Patients, e.g. Breast-CA-Patients, ...)	LINAC	150% of regular treatment time	RTTs, Physicists, (Physicians)

CLINICAL SESSION CATALYST *c*RESPIRATION

This session covers the Catalyst clinical mode for *cRespiration* and is meant for a maximum group of 10 participants. The topics and schedule apply for each group repeatedly. Please look for preparations needed.



WHO SHOULD ATTEND:

- Therapists
- Physicists
- Physicians can attend to the clinical session with the patient

PREPARATIONS:

- Prepare and charge the goggles/tablet for visual coaching with the charger
- If applicable, prepare a gating phantom for breathing simulation

TOPICS:

- Optimize settings, e.g. scan volume and camera settings for gating case
- *c*Position: Patient setup, adjust for posture error and whole-body translation in free breathing
- *c*Motion: acquiring treatment position and monitoring patient motion
- *c*Respiration: Coached deep inspiration and free breathing, changing settings
- Workflow SIGRT

TRAINING TIMETABLE:

	Event	Location	Duration	Attendees
Practice (no patients)	Catalyst <i>c</i> Respiration	LINAC	2h	RTTs, Physicists
Go Live (with patients)	Catalyst Clinical Gating Session (Gating Patients)	LINAC	200% of regular treatment time	RTTs, Physicists, (Physicians)



CLINICAL SESSION CATALYST cSRS

This session covers the Catalyst clinical mode for cSRS and is meant for a maximum group of 10 participants. The topics and schedule apply for each group repeatedly. Please look for preparations needed.

WHO SHOULD ATTEND:

- Therapists
- Physicists
- Physicians can attend to the clinical session with the patient

PREPARATIONS:

- Prepare test patient/plan, non-coplanar fields
- SRS case with a patient prepared with open mask
- Penta guide for Catalyst SRS Routine-QA

TOPICS:

- Difference with cSRS algorithm
- Optimize settings, e.g. scan volume and camera settings for SRS case
- cPosition: Patient setup with open face mask
- cMotion: intrafractional motion monitoring during treatment session
- handling plans with couch rotations
- Workflow SIGRT

TRAINING TIMETABLE:

	Event	Location	Duration	Attendees
Practice (no patients)	Catalyst Routine-QA for cSRS	LINAC	30min	Physicists
	Catalyst cSRS	LINAC	1h	RTTs, Physicists
Go Live (with patients)	Catalyst Clinical Session	LINAC	150% of regular treatment time	RTTs, Physicists, (Physicians)

c4D ADVANCED & ADMINISTRATOR SESSION

In addition to each clinical training session, the c4D Advanced and Administrator session needs to be scheduled and can be conducted in a conference room or at a C-RAD workstation with all assigned staff members (or participants). Please check the timetable below which topic does apply to the respective training module.



WHO SHOULD ATTEND:

- Anyone who is or will be responsible for handling the mentioned points under “topics”

PREPARATIONS:

- Meeting room with projector for bigger groups
- Access to c4D office client if applicable
- Exported plans for the respective module

TOPICS:

- Importing treatment plans
- Adjusting patient settings
- Generate reports
- Activate and inactivate patients
- Archiving patients
- Creating / adjusting templates
- Creating / handling rooms
- Creating users

TRAINING TIMETABLE:

	Module	Topic	Location	Duration
Theory	cPosition, cMotion,	c4D Advanced & Administrator mode	Conference Room	1h
	sRespiration / cRespiration	importing gated treatment plans with Sentinel session to c4D	Conference Room	30min
	cSRS	importing SRS treatment plans to c4D	Conference Room	30min

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References

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1	S-190902-001-01	C-RAD Clinical Application Training Customer Briefing_EN

Document history

Version	Valid from	Description
01	2019-09-02	Initial Version