

## Expert Perspectives



### **Dr. Russell Banner**

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## Streamlining radiation oncology workflows with the Radiation Oncology Orchestrator

South West Wales Cancer Centre (SWWCC) has entered into a collaboration project with Philips with the goal of improving the consistency, efficiency and quality of its radiotherapy planning workflow. SWWCC has employed both the Philips patient management solution Radiation Oncology Orchestrator (formerly known as IntelliSpace Radiation Oncology) together with its related Radiation Oncology Practice Management services to streamline treatment pathways and reduce the time between referral and first fractional treatment for its breast, prostate and palliative patients.

“It’s well-known that reducing time to radiotherapy is important. There is a clear relationship between an increased risk of local recurrence with increased waiting times for radiotherapy,” says Dr. Russell Banner, consultant clinical oncologist at SWWCC.

## Challenges to efficient workflow

Dr. Banner points out that one of the obstacles to efficient workflow is the increasing fragmentation of clinical systems. In fact, it is a topic that fellow clinicians in the UK are vocal about on social media, pointing out that it results in undesirable situations such as the need for 16 different passwords and PINs to access the various sets of information and systems necessary for their jobs. This clinical system fragmentation can also cause delays in completing various necessary tasks. Workflow everywhere is further complicated by the need to work remotely during a pandemic. “Working from home on a Citrix platform can be a challenge,” notes Dr. Banner.

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Dr. Russell Banner

# Reducing the time from referral to treatment

## Improving the treatment pathway for breast cancer

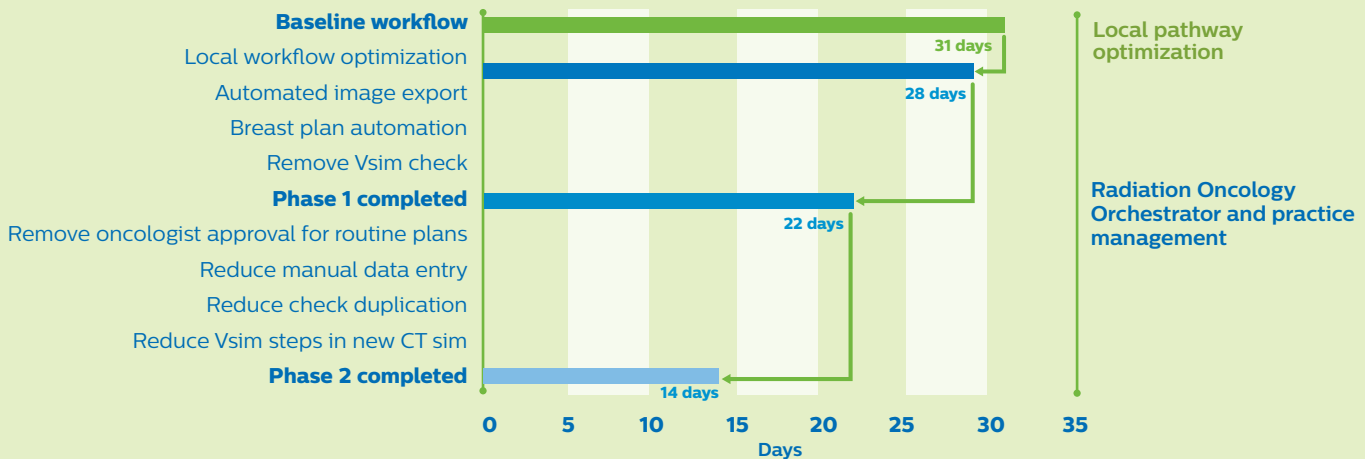
The SWWCC team, together with Philips Practice Managers, has made strides in the past few years to assess the entire workflow, identify areas for improvement and implement pathway optimizations.

The team’s ambition is to reduce the time from referral to treatment to 14 days for 80% of their breast cancer patients, from a baseline of 31 days. Pathway optimizations, including remote contouring and therapy plan approval, automated image export, automated breast planning on the Philips Pinnacle treatment planning system and removal of the Vsim check, have already led to an improved breast workflow of 22 days.

To further automate routine tasks and improve the integration between in-house applications, the team sees great opportunity with the implementation of the Radiation Oncology Orchestrator. This patient management solution builds bridges between the different tasks and IT systems in the radiation oncology workflow to orchestrate the interactions between people, applications and processes.



## Breast pathway improvement plan



**SWWCC is on a journey to reduce referral-to-treatment time. The plan predicts an ultimate pathway throughput reduction of more than 50% – to just 14 days for the breast cancer workflow.**

## Connecting workflows, reducing time to treatment

SWWCC collaborated closely with Philips to define user needs for the Radiation Oncology Orchestrator. SWWCC emphasized key requirements for a patient management system.

- Single log-in for access to all systems
- Remote access
- Clear overviews of tasks and priorities
- Automation of routine tasks
- Open, vendor-neutral platform
- Context-sensitive launching of applications
- Treatment summary at the end of the process for reporting and system verification

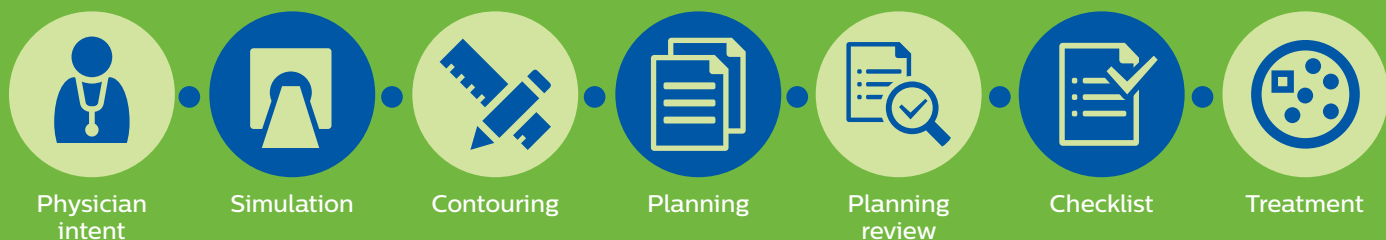
“We also know from clinical trials that adhering to a radiotherapy protocol improves outcomes, and we have got to find a way to balance the need to follow a protocol with keeping appropriate clinical flexibility to personalize patient care,” says Dr. Banner.

## Remote access and more efficient customized workflow

The Radiation Oncology Orchestrator allows users to have remote access to the various applications used in the workflow. Tumor-specific ProtocolCards drive patient flow by integrating the applications and by providing more transparent communications.

To aid efficiency, workflow is specific to the tumor site, SWWCC equipment and SWWCC clinical workflows. The solution can accommodate physician-requested off-protocol modifications that are patient-specific, which are highlighted in the customized workflow.

Patient demographics and DICOM data are automatically routed to each system. This allows the team to send information in and out, but keep an overview of patients within the workflow, prioritized by clinical urgency or planned treatment start date. While the entire workload is visible, users can also view active tasks. Overview dashboards feature the ability to launch applications, see clinical patient information and review completed tasks.



## Providing proof of concept for an improved pathway for prostate cancer

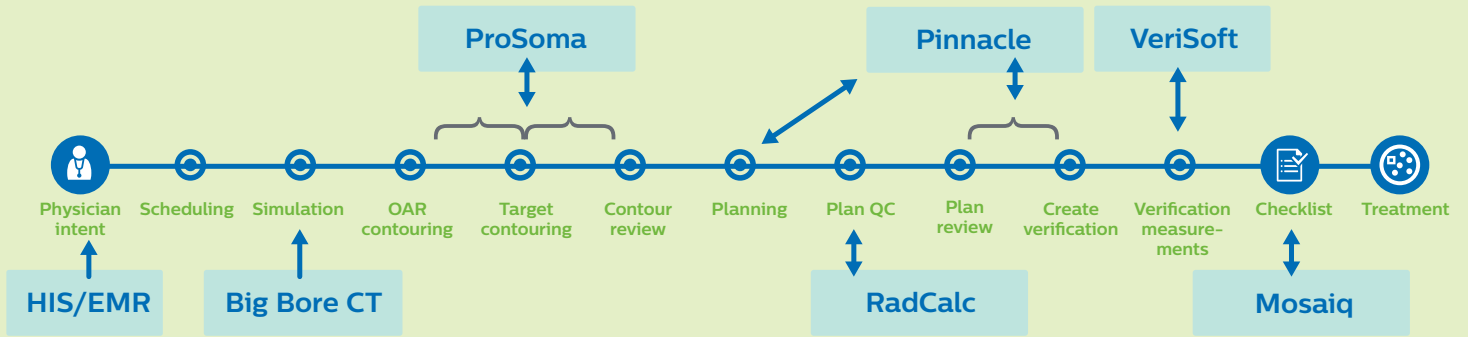
Building upon the workflow mapping activities, Philips Practice Managers worked with the SWWCC team to build site-specific ProtocolCards for prostate and breast pathways. SWWCC started the evaluation of the Radiation Oncology Orchestrator for its prostate cancer patients in October 2020. In this clinical evaluation, physician intent and scheduling were done retrospectively, but all other tasks were completed live. The entire system was checked to work over Citrix, which enables work done remotely, and was confirmed to also work on tablet devices.

“It’s well-known that reducing time to radiotherapy is important.”

Dr. Russell Banner

# ProtocolCard customization to local equipment profile

Example timeline - South West Wales Cancer Centre



## “A vast improvement”

The team appreciated the ease of use, and that the ProtocolCards were specific to the tumor site at hand, which allowed for greater efficiency. They noted that fewer information fields to complete saved time and minimized chance of error. Overall, the team found the solution a vast improvement over the current system, feeling it could not only speed workflow but could also lead to a reduction in error.

## Intelligent, connected pathways are shaping the future

The complex workflow of radiotherapy requires innovative approaches to orchestrating people, data and applications to manage complexity, improve efficiency and enable operational excellence. At SWWCC, workflow optimization with Radiation Oncology Orchestrator and Radiation Oncology Practice Management is being evaluated with the goal of simplifying and accelerating the patient's path from referral to treatment.

## Workflow efficiency to shorten the time from referral to treatment.

For more information about Radiation Oncology Orchestrator and Practice Management visit [www.philips.com/radiationoncologyorchestrator](http://www.philips.com/radiationoncologyorchestrator) or [www.philips.com/radiationoncologypractice](http://www.philips.com/radiationoncologypractice)

Results from case studies are not predictive of results in other cases. Results in other cases may vary.

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