

Cancer Centre Design Concepts: The Alberta Experience

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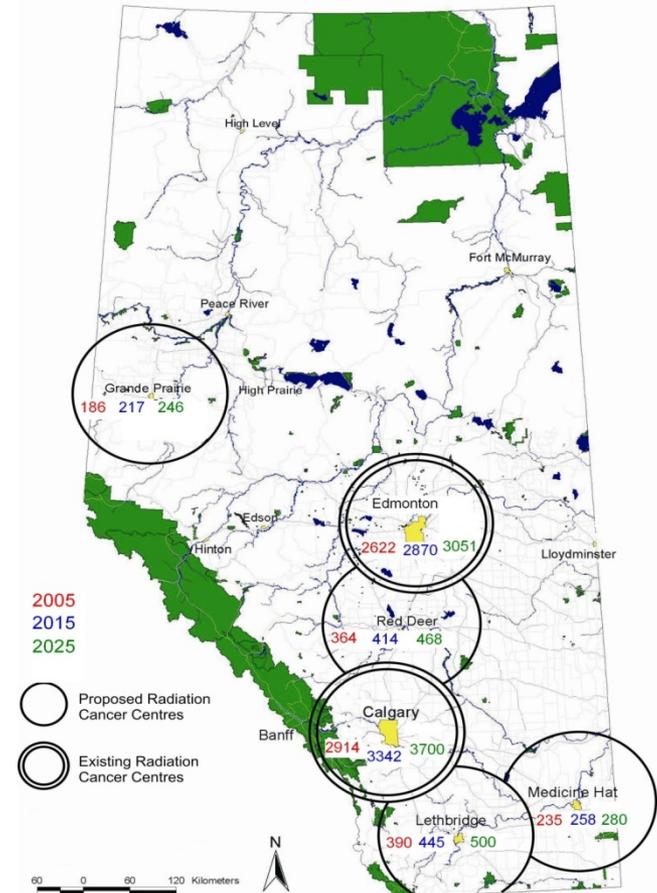
Director Quality, Safety, and Patient
Experience

Presentation Overview

- Radiation Therapy Corridor Project
- Healing environment and patient experience
- Radiation Therapy Corridor Centre Design
- How the built environment influences and is influenced by process and practice

Radiation Therapy Corridor Project

- Federal/Provincial Partnership
- Three new RT sites
 - Lethbridge 2010
 - Red Deer 2014
 - Grande Prairie 2019



Healing Environment

A physical environment and organizational culture and practice that:

- Supports recovery
- Creates a nurturing and therapeutic
- Reduces stress
- Supports self service and control

“You are safe here, you will be cared for here”

Healing Environment

“Environment” by definition: the conditions and influences that affect the growth, health, progress, etc., of someone or something

Our goal: to create *a healing environment* that is patient centred supports **both** patients and providers.

- Research tells us that it enhances staff productivity and satisfaction
- In general, the needs of patients aligns with provider needs

“ When it works for patients it works for us”

General Cancer Design Concepts

- Reception needs to be located near the main entry
 - Wheelchair
- Privacy
- Washrooms
- Technology
- “Positive distractions”
- Choice of furniture
- Supportive Artwork

General Design Concepts

Color

- Neutral colours generate a feeling of warmth and calm
- Complementary accents of bright color create areas of interest

Finishes

- Wood grain
- Solid surfaces
 - Durability and perception of cleanliness

General Design Concepts

Lighting

- Natural light and access to windows
- Recessed, indirect, patient controlled

Flooring

- Way finding and safety
- Create perception of shorter distances

General Considerations

- Increased electrical and data outlets at standing height
- Utility rooms with electrical tacking
- TVs
- Soundproofing
- Artwork

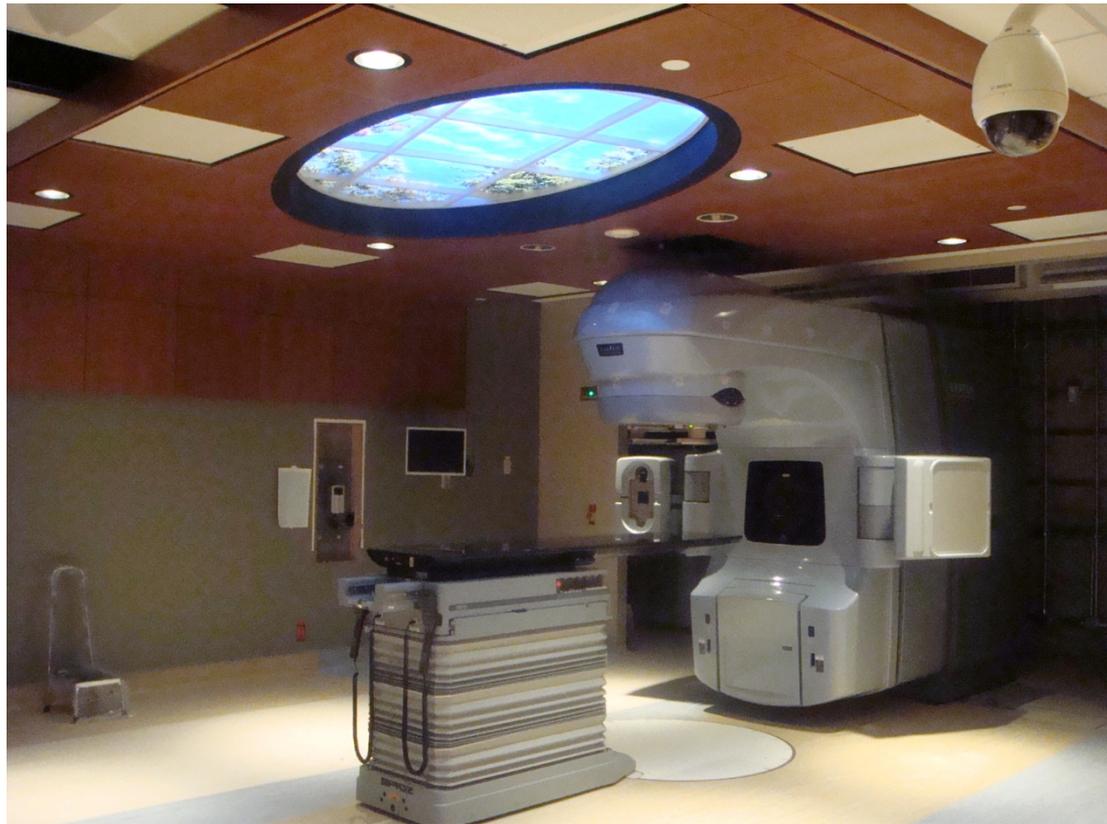
Medical Day Unit

- Location
 - Access to natural light and windows
 - Private and semi private spaces
- Furniture
 - Heated seat recliners
 - TVs
 - Guest spaces

Vault Design



Vault Design



Vault Design



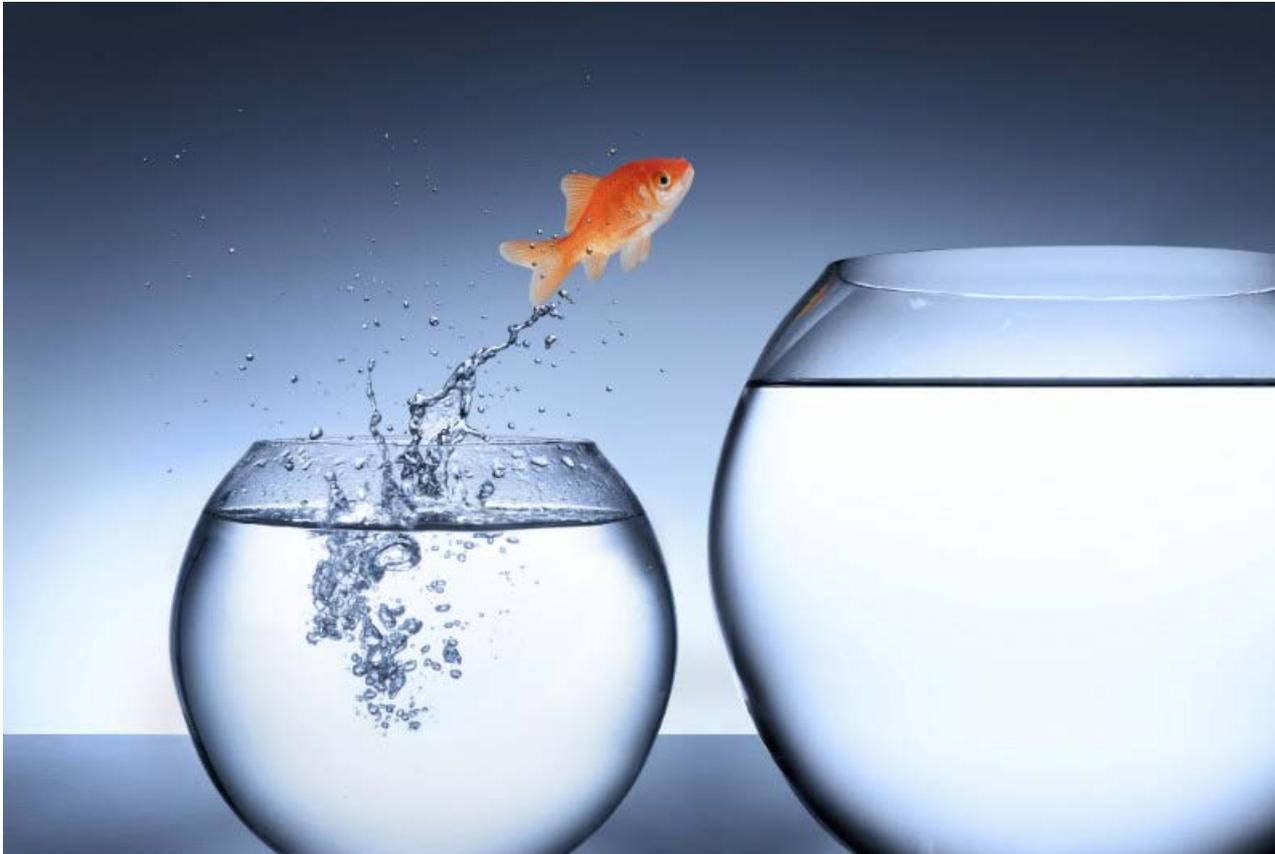
General

- Utility rooms with electrical track for equipment charging
- Comfortable waiting room furniture
- Patient teaching spaces with furniture with tablet arms
- Internet access
- Electrical outlets at standing height in patient areas
- Washrooms

Courtyard



Transitioning from the old to the new!



Preparing the Team for Change

- Involved them in as many decisions as possible
- Envision future state work flows – process maps
- Mock clinics and treatments to “feel” the space
- Human Factors review
 - the physical space and how the team would interact with the environment
- Modified Failure Modes Effect Analysis (risk mitigation)

Create a Team Vision!

Team Performance

Team performance management is the concept of adjusting the composition, context or direction of a team or work group in order to increase the effectiveness of the team or group!



Mapping the Future State

- Involved the entire team
- Creates shared understanding
- Solved many longstanding issues
- Process map out what is **not** working

“Leave our bad habits behind”

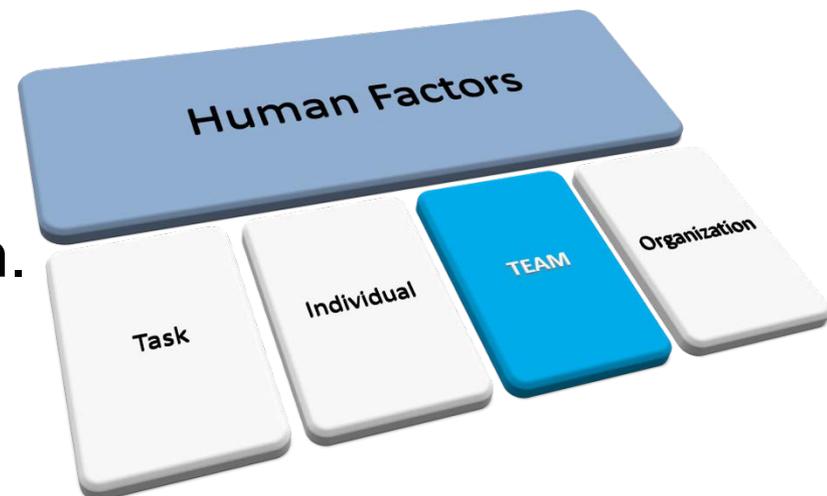


Co-created Shared Goals

- Work as a team to deliver high quality person centred care!
- Move towards a paperless environment
- Optimize all team members contributions by standardizing roles and expectations
- Take Time to Celebrate – to say goodbye to the old space and ***honor*** the memories and the great work that had been done there

Human Factors Review

- The goal of the AHS Human Factors team is to use human factors science to develop timely, valuable, and evidence-based solutions that reduces risk and contributes to the design of a high-quality and safe healthcare system.
- Our vision is a healthcare system with no preventable harm.



Human Factors Review

Two days of mock clinics/treatments allowed a thorough evaluation of how the staff would interact with the space. Many modifications were made to the future state process maps,

- where equipment is kept
- how supplies were standardized
- Wayfinding and signage
- Handrails – posed a safety issue
- Chemo/drug labeling and storage
- Infection Prevention and Control

Main Reception

- Multiple waiting rooms not clear as to their functioning
- Name each waiting room based on function and provide signage i.e., “Clinic waiting room”
 - Include artwork on the wall that could be used as a landmark to direct patients “go to the waiting room with the flower on the wall”



Main Reception

- Handrail is only installed on one side of hallway
 - Potential injury if patient was using the metal rail for support and slipped
- Include handrail above all metal rails for patient support



Outpatient Clinics – Exam Rooms

- ‘Perceived’ patient privacy a concern with exam rooms with large windows & see-through blinds
 - Install privacy curtain on window wall
 - Frost the glass to allow natural light into the room without impacting privacy
- Need intuitive room #'s on doors and included on the distress form
 - Must match nurse call system



Risk Assessment – Going paperless!

- Modified Failure Modes Effect Analysis



Modified Risk Assessment

Potential Failure Modes - Listed by Process Step		Severity	Occurrence	Detectability	RPN
Process Step - Patient seen in OPD by RO					
1	RT req not received in RT - leads to treatment delay (maybe doesn't even get treatment)	5	2	4	40
Process Step - RT Clerk books CT sim/pt ed in MO					
1	Chemo coordination not correct - leads to treatment not as protocol	4	2	1	8
Process Step - Patient is scanned and tattooed					
1	Setup info not in room - leads to all sorts of problems (require secondary monitor with keyboard in ct suite)	4	4	4	64

Lessons Learned inform Grande Prairie Cancer Centre

- Human Factors from the CACC team were at the design table
 - Redesigned the RT Vault – shelf space, monitor placement, workflow, spaghetti diagrams, patient experience
 - Exam rooms – Redesigned to be more conducive to having difficult conversations
 - Systemic Therapy – Chemo Chair Space more inviting and calming and far less “clinical”
- Flexibility for the future
 - Rapidly advancing technologies
 - Paperless environments
 - Changing accreditation standards

Questions and Comments?

