HTA

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A Guide to Health Technology Assessment in the Palliser Health Region

AHFMR ALBERTA HERITAGE FOUNDATION FOR MEDICAL RESEARCH

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HTA Initiative #20 ● June 2006

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AHFMR

ALBERTA HERITAGE FOUNDATION
FOR MEDICAL RESEARCH

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Acknowledgements

The authors would like to acknowledge the general assistance of:

- Alberta Health and Wellness,
- the Canadian Agency for Drugs and Technologies in Health, and
- the Capital Health Region

in this project.

The authors would like to thank Jon D. Brehaut, Hummingbird Consultants, and Don Juzwishin, Health Technology Assessment Unit, Alberta Heritage Foundation for Medical Research, for their assistance in the preparation of this report.

ISBN 1-894927-38-9 (Print)
ISBN 1-894927-39-7 (On-line)

ISSN: 1706-7855

Additional information and comments relative to this Initiative Report are welcome and should be sent to:

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Alberta's Health Technology Assessment program has been established under the Health Research Collaboration Agreement between the Alberta Heritage Foundation for Medical Research and Alberta Health and Wellness.

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INTRODUCTION TO PROCESS

Health Technology Assessment (HTA) is the systematic evaluation of properties, effects and/or other impacts of health care technology. Its primary purpose is to provide objective information to support health care decisions and policy making at the local, regional, national and international levels. It is the evaluation of medical technologies – potentially including procedures, equipment and drugs. An assessment requires an interdisciplinary approach, which encompasses analyses of safety, costs, effectiveness, efficacy, ethics and quality of life measures. It may be expanded to include innovative and alternative or complementary health technologies in addition to traditional technologies including service improvements and/or enhancements.

For the purposes of this process, technology includes all new and emerging diagnostic and therapeutic health technologies used for the delivery of health care (excluding medications)

Goals of HTA

The goals of health technology assessment are to:

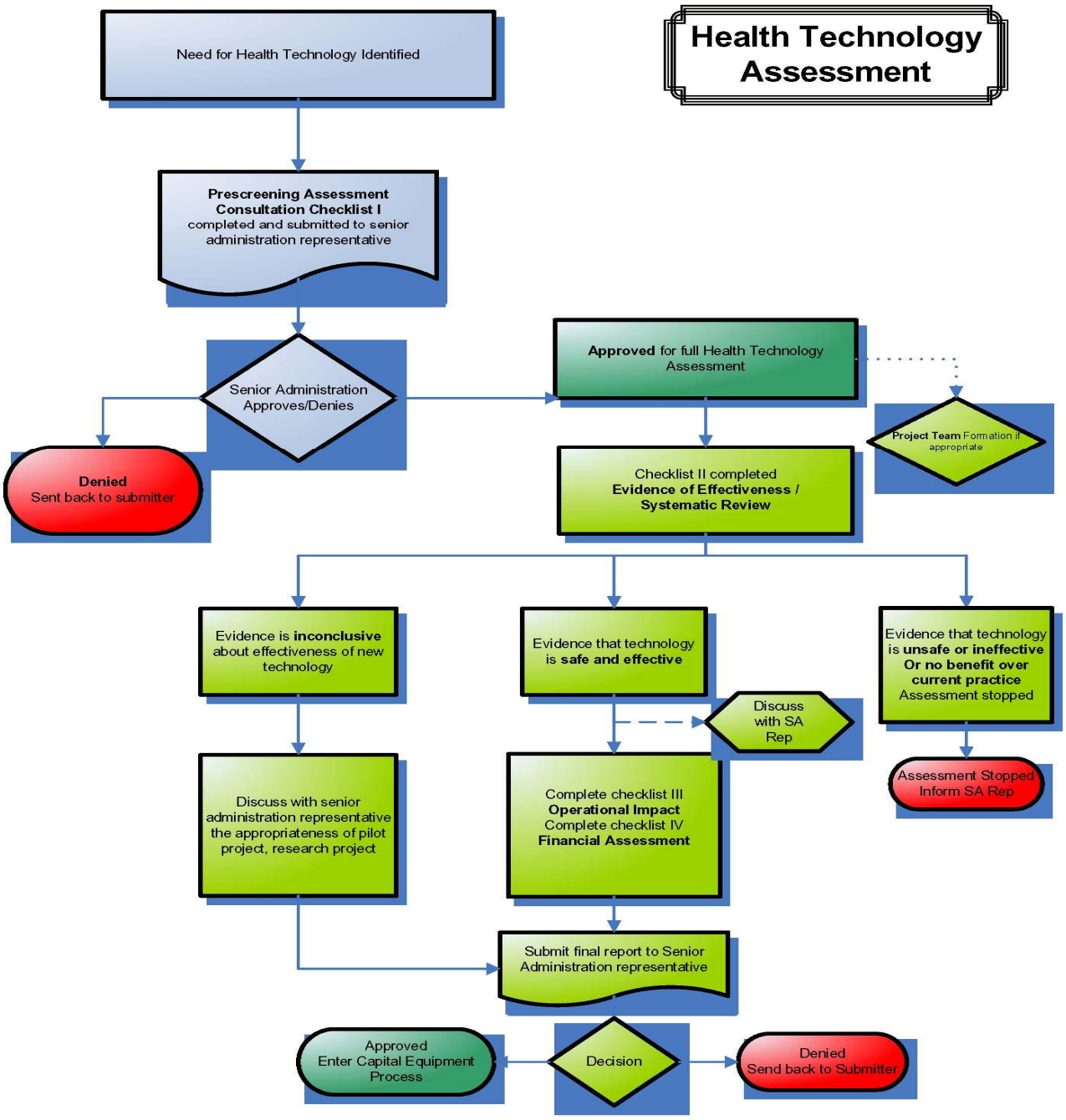
- estimate the need for health technologies given the health needs of the community;
- assess the safety, efficacy and effectiveness of health care technologies;
- identify the resources required to offer technologies where they will be most accessible to the community members requiring them;
- evaluate the costs and consequences of providing health technology and of not adopting them; and
- develop implementation and evaluation plans for the technologies for which resources are allocated.

OVERVIEW OF HTA PROCESS

Steps in the HTA Process

Not all phases need to be completed to provide insight into whether to proceed with the technology or not. The order of the phases may be changed to deal with issues in order of relevance for each technology.

Figure 1: Health Technology Assessment in the Palliser Health Region



1. Submission of HTA request by department/physician/clinical service. Prescreening Assessment Checklist I completed and submitted to senior administration representative.
2. If approved to proceed to full assessment, project team may be formed as appropriate. The following items are then completed:
   a. Checklist II – Evidence of Effectiveness is a summary of available evidence (see Levels of Evidence under General Assessment Criteria)
      - If technology is **unsafe or ineffective** the screening process is stopped and discussed with senior administration.
      - If evidence for the use of the new technology is **inconclusive**, the Palliser Health Region may choose to reject the request or conduct a research project to determine if technology is appropriate for introduction.[1]
      - If the technology is **safe and effective**, Checklists III and IV are completed.
   b. Checklist III – Operational Impact
   c. Checklist IV – Financial Assessment
3. Final report is submitted to senior administration representative.
4. If approved, develop implementation and evaluation plan.
5. If approved, HTA proposal enters capital equipment process including request ranking.
6. If approved, implement and plan evaluation.
7. Conduct post implementation evaluation.

Stage 1: Pre Assessment Consultation

When screening requests consider:

1. Financial implications of capital and ongoing operational expenses
2. Impact on other service areas
3. Impact on training and education

[1] Where there is insufficient or poor evidence of efficacy and effectiveness, the Palliser Health Region may take into account the community's desire for access to the technology, the social and ethical implications of offering or withholding such technologies and balancing these considerations with the cost of conducting a pilot project or clinical trial of the technology for which there is poor evidence.

Stage 2: Full Technology Assessment

Decision Matrix – Priority Setting Tool

Priority Item	Zero Priority 0	Low Priority 1	Medium Priority 2	High Priority 3	Score
Expected Volume of Service (Access, Appropriateness)	No clinical caseload is appropriate for use in the Region	Low volume of patients appropriate for this technology	Population appropriate for use exists in numbers adequate to maintain clinical skills	Appropriate population is large, population expectations for access are high, potential to expand in future to other populations Adequate to maintain clinical skills, credentialing	
Safety	Proven evidence that Technology is unsafe Approvals not in place for use (e.g. Government)	Evidence is inconclusive regarding safety, outstanding questions exist, not as safe as current practice	Patient safety is similar to current practices, no threat to patient safety	Patient safety may be compromised if technology is not adopted or is dramatically improved through adoption of new technology	
Effectiveness, Acceptability	Proven evidence that new technology is not more effective than current practice	Inconclusive evidence of effectiveness	Technology is equally effective as current practice	Technology offers significant improvement in patient outcomes or satisfaction	
Diffusion Potential (Appropriateness)	No potential for diffusion, restricted to one site, surgeon, etc	Limited diffusion potential, may be used by different surgeons for example in one location	Diffusion potential exists for use in different areas, by different providers	Enormous diffusion potential, can be used across different sectors (i.e. home care, acute care) with different providers	
Estimated costs (Efficiency)	Renovation costs in addition to significant operational and capital costs beyond funding availability	Significant ongoing operational expenses (supplies, staffing) in addition to capital expense	Combination of capital cost and ongoing operational within budget availability	Cost is primarily capital one time expense with limited ongoing operational cost OR Opportunity for significant improvement in efficiency, cost containment in comparison to current practice	

Maximum Total Score: 15

Expected Volume of use:

Those items with potential for application/use by larger regional populations would receive higher priority than those with limited use for specific patient populations. Accessibility to new technologies is the concern which increases the priority level as target population size increases.

Safety:

Items which may compromise the safety of patients in the region if not adopted would receive higher priority than those items where patients safety it not a concern. Technologies that are demonstrated to compromise patient safety or where evidence on patient safety is inconclusive would receive a lower priority. Technologies would not proceed if significant questions surrounding safety exist.

Effectiveness:

Items with proven ability to improve the effectiveness of the care provided to patients with demonstrated improved outcomes would receive the highest priority. Those items with inconclusive evidence or proof of ineffectiveness would receive lower priority or would not be approved.

Diffusion Potential:

The ability for diffusion or use of the new technology across a variety of locations, care providers etc. is a major concern. Those items where significant/enormous diffusion potential exists would receive higher priority. Whereas items restricted to a specific location, limited number of surgeons/specialties etc would be lower priority.

Estimated Costs:

Consideration to both the capital and ongoing operational financial impact are required. Those items which are a pure capital cost or improve operation cost (e.g. reduce inpatient days) would be considered higher priority than those that have significant or unpredictable ongoing operational costs.

STRUCTURING A REVIEW

While reviewing health technologies is never simple, it is not complicated either. Some technologies are simple enough for a single individual to manage the whole review in only a few hours, while some are so complex as to require the expertise from many different areas over the span of a year. Most health technology reviews however fall into the middle ground, where a team of individuals with varying backgrounds pool their expertise to ensure that all aspects are considered in coming to a decision on introducing a technology. Most reviews at the regional level could take anywhere from one to three months.

In starting a health technology review, it is useful to formally establish a project team with a project charter, a project manager, a cross-functional team and some structured management processes. Management of a health technology review project does not differ significantly from the management of any project.

The Project Charter

Project charters need not be elaborate, but it will help all concerned to understand what they are doing and what their role may be. The charter should detail the purpose and objectives of the project. The purpose is usually to assess the technology for adoption within the Palliser Health Region. Objectives may differ from technology to technology depending on whether it is a brand new technology or a supplement or enhancement to an existing technology.

If needed, the charter could contain a brief background on the technology and the regional context that suggests that a review is valuable. Since the project would be formally established once the technology was approved for review, that is, after the completion of Checklist I, much of the charter's background section could come from the Checklist.

The charter should also contain a section on the organization of the project, identifying the different tasks or activities, with timelines and milestones where appropriate. This section should also list the resources, both the project team and otherwise, that are required to complete the project expeditiously. Roles and expectations of the project team members should be specified. If there are any special costs involved, these should also be listed.

Finally, the charter should contain a short section on how the project is to be managed, who it reports to, and how quality of the work will be reviewed and maintained. The role and responsibility of the project manager of the review should be specified.

The Project Team

The composition of the project team will vary from review to review, both in numbers and skills or knowledge required. Normally, the project team should include a

physician, a nursing administrator, a financial officer, and key individuals directly connected to the use of the technology. Although not necessarily a full member of the project team, the relevant department head should be involved to provide a management perspective and assistance with interpretation of the business plan objectives and other regional initiatives.

The Project Manager

The project manager is the key individual in the health technology review. Although it is not necessary for him or her to be an expert in the technology, they should be knowledgeable of the area and the conditions for which the technology will be used. The project manager will need to ensure that the project charter is understood by the team as well as the department head and senior management, including getting sign-off on the charter from the department head. The project manager is responsible for ensuring that all project team members are appropriately involved with all phases of the review and are in agreement with the results. The project manager must approve all written reports from the project and defend them when required. The project manager is responsible for all communications from the review project.

A Note on Project Management Processes

Appropriate management of a health technology review project does not differ significantly from any other project. There are two foci of management processes: the team and the department head/senior management. If possible, at the start of the project, the project manager should convene a meeting of the project team to discuss the review, their roles and how best to ensure that the tasks are done effectively and efficiently. Throughout the project, the project manager should maintain continual contact with each team member to ensure that assigned tasks are being completed on time.

The project manager is also responsible for reporting on progress of the review to the relevant department head, including problems encountered and how they are being resolved. Although not normally required, in more complex projects, periodic financial reports may also be needed. The project manager is also responsible for involving the department head or other management representative in appropriate aspects of the review.

A NOTE ON THE AUDIENCE

When completing the checklists, the project team should keep in mind that the primary audience of this process is management, particularly the senior administration team. Managers are well-versed in health care and regional operations. However, they should not be expected to know and understand all the technical terms that are often used when discussing medical conditions and technologies. Writers should use plain language as much as possible. The informed patient or layman should be the standard target of all communication.

GENERAL ASSESSMENT CRITERIA

Throughout the assessment process, the reviewers will need to assess the technology against several different sets of criteria.

Palliser Health Region Mission and Values

Mission

Working together to promote, maintain, improve, and protect health and wellness by providing health services that are responsive, accessible and accountable.

Guiding Principles

We shall…

- govern and operate in an ethical manner and be accountable to the public.
- ensure people have the right to confidentiality of their health information.
- put people's health and wellness first, provide basic services locally, be responsive to changing health needs and recognize the responsibility of people to make informed health choices.
- protect the environment and health of our communities.
- provide a holistic evidence-based model of health, which may include various complementary, and traditional, healing practices, health promotion and education.
- strive for seamless, quality services by a variety of qualified providers using innovative, cost effective services that are timely, appropriate, monitored and evaluated.
- treat people with respect, foster cooperation among our partners and professionals and include their input as appropriate.

We believe…

- in putting people's health and well-being first and foremost.
- in treating all people with respect and dignity.
- that people have the right to confidentiality.
- that people have the right and responsibility to make informed choices in all decisions regarding their health.
- that everyone has a responsibility to protect the environmental health of their communities.

- in a holistic wellness-based model of health, using promotion and education to maintain and improve health.
- in a seamless and integrated system of health services and programs.
- in being responsive to people's changing needs.
- in respecting complementary and traditional healing practices.
- that basic services should be provided as near to the individual's residence as financially possible, recognizing that the options must remain cost effective.
- in providing quality services within the region's funding means by a variety of qualified providers and avoiding unnecessary duplication.
- that we must be open to innovative cost-effective approaches of delivering services by both the private and public providers.
- in fostering cooperation among service providers within our region and beyond.
- as part of decision-making, we must involve stakeholders in discussions.
- that we need to continually improve standards of health service that will be appropriately monitored and evaluated.

Palliser Health Region dimensions of quality

Accessibility: Required services are easily obtained in the most suitable setting in a reasonable time and distance.

Acceptability: Services are respectful and responsive to user needs, preferences and expectations.

Appropriateness: The right services are provided and are relevant to user needs and based on evidence /established standards.

Effectiveness: Provided services are based on scientific knowledge, avoiding overuse, under use, and wrong services. Services achieve desired outcomes.

Efficiency: Resources are optimally used in achieving desire outcomes (i.e. avoiding waste).

Safety: Potential risks and/or unintended results are avoided or minimized.

Level of Supporting Evidence

Level 1: Strong evidence from at least one published systematic review of multiple, well designed randomized controlled trials.

Level 2: Strong evidence from at least one published, properly designed randomized controlled trial of appropriate size and in an appropriate clinical setting.

Level 3: Evidence from published, well-designed trials without randomization, single group pre-port, time series, or matched case controlled studies.

Level 4: Evidence from well-designed non-experimental studies from more than one centre or research group.

Level 5: Opinions of respected authorities, based on clinical evidence, descriptive studies or reports of expert consensus committees.

NOTES FOR CHECKLISTS

Checklist I: Pre-Assessment Consultation

Checklist I is intended to be a preliminary presentation of information pertaining to the introduction of the technology in order to decide if full assessment is appropriate. A thorough assessment, Checklists II, III and IV, will proceed only if approved following the pre-assessment screen.

The checklist is intended to be a short summary of immediately available information and does not require in-depth literature searches or reviews. It should not take more than a few hours to complete.

Vendor information is acceptable as a basis for this checklist if no other information is immediately available. **Where vendor-supplied information is used to complete the checklist, this should be noted in the responses.**

Notes for Specific Items:

Section A

- Question 1: This is intended to be an overview of the change or technology and it should be kept to one or two paragraphs. Please write with the informed layman in mind as your reader.
- Question 2: This question is intended to relate the technology under review to the characteristics of the Palliser Health Region community (internal and external) that affect the provision of quality health care. The response should identify which of the priorities stated in the business plan is supported by the technology under review and whether it assists the Region in maintaining its standards of quality and access. (See General Assessment Criteria above)
- Question 4: For other regions, a quick telephone call to your counterparts in the other regions may be sufficient to answer this question. Responses should be kept to one or two sentences.
- Question 6: Address whether the technology in question is in addition to (supplemental) or is an enhancement of an existing technology (improvement)

Section B

- Question 1: Populations which should be included are those for whom the technology has been found to be safe and effective; those who would find the technology acceptable; and those who would find the technology preferable to an alternative technology (this is particularly important to avoid underestimation of the demand).

- Question 3: The data source(s) used to arrive at patient volume and anticipated demand may vary according to technology. Use your best estimate of growth in demand. Demand may increase over time due to the use of the technology for patients or conditions not presently indicated. It is important to estimate the risk of this occurring. The growth in use of a technology may result from a number of factors such as:
    a. an increase in the number of patients with the target condition or disease perhaps:
        i. from becoming more acceptable to patients, or
        ii. from general population increase or in-migration of such patients, or
        iii. from changes in the environment that may increase the incidence or prevalence of the condition or disease
    b. an increase in the capacity of the region to provide the service
    c. indicator creep (so-called), where the indications or criteria for use expand over time to encompass new patient groups and new conditions or diseases
- Question 8: Please provide an initial, ballpark estimate of costs. Capital cost may be one-time (based on projected lifespan of technology) or spread over one or more years. Provide annual incremental costs per year (new costs above current costs) for consumables, staffing, training and other. This preliminary information is often available from the vendor.
- Question 12: This information can be obtained from one of more of the following agencies:
    - Alberta Heritage Foundation for Medical Research, <www.ahfmr.ab.ca>
    - Canadian Agency for Drugs and Technologies in Health (formerly CCOHTA), <www.CADTH.ca>
    - Institute of Health Economics, <www.ihe.ab.ca>
    - Alberta Health Technologies Decision Process, 780-415-2858

Checklist II: Evidence of Effectiveness

(to be completed by requestor and project team[2] if applicable)

This checklist requires expanding on details/information in Checklist I. It should be completed ONLY once Checklist I has been submitted to Senior Administration and approved for full Health Technology Assessment.

The responses to this checklist may require a summary and critical appraisal of relevant literature, called a systematic review. Since systematic reviews are time consuming and labour intensive, it is advisable to ensure that duplication of effort is avoided in order to minimize the expense associated with a thorough applied HTA. **Since the Palliser Health Region is not normally an early adopter of technologies, it is likely that a systematic review already exists.** Consult the agencies listed in Appendix I to see if some form[3] of a systematic review has already been done on this technology. Where the technology is already in use in other regions, consult your counterparts in those regions to obtain information on effectiveness.

If there is no published systematic review or evidence cannot be obtained from other regions to support the technology's introduction, then a decision will have to be made by the Region as to whether or not to proceed with the screening procedure.

If it is determined that a systematic review be done by the Palliser Health Region, search the scientific literature for good quality studies that examine recent experience with the efficacy and effectiveness of the proposed technology. Be aware of the distinction between clinical effectiveness and cost effectiveness. Clinical effectiveness is the ability to demonstrate improved patient outcomes (e.g. improved function, return to work, patient satisfaction). Cost effectiveness is the ability to demonstrate reduction of costs or cost containment (e.g. reduced length of stay, reduced reliance on inpatient services). See also Levels of Evidence.

It is important to broadly survey the evidence, as emerging developments may render the technology obsolete in the near future. In addition to appraising the scientific literature, information may be obtained from regulatory bodies, other users, and facilities that have experience with the technology. In this stage, it is not prudent to rely solely on information from vendors, or technology manufacturers.

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[2] In most cases, a project team is recommended unless the technology is relatively simply and has few implications for potential introduction/further application in the Palliser Health Region. The team should be composed of impacted individuals representing service areas/ different disciplines or relevant parts of the organization as well as a physician champion.

[3] Acceptable evidence may include, for example, AHFMR's HTA Reports, HTA Information Papers, Technotes, or Qwiknotes.

If you require assistance in performing a thorough literature search or review contact a SEARCH participant in the Palliser Health Region or the HTA Unit of the AHFMR.

Steps in a Systematic Review

1. Review if a Health Technology Assessment has already been completed on this technology (see resources included in Checklist I – Question 12)).
2. Clearly state the objectives for introduction of a technology or reapplication of an existing technology.
3. Identify the supporting evidence (level of evidence, see page #) related to the proposed technology.
4. Include a brief history of the technology.
5. If applicable, describe current standard of care for which the technology is being requested.
6. Summarize the findings from critically reviewed published evidence that shows the new technology/application is more effective/efficacious than standard care.

Notes for Specific Items:

- Question 1: The response to this question can incorporate and expand on the response to Checklist I, Questions 1 and 2.
- Question 3: Check with agencies listed in Appendix I. Provide brief summary of conclusions of the reviews. If no systematic review exists, the technology might be too new for the Palliser Health Region to consider.
- Question 4: If a reapplication of an existing technology to new population, populations may include those for whom the technology has been found to be safe and effective; those who would find the technology acceptable; and those who would find the technology preferable to an alternative technology. See notes on Checklist 1, question 3 and Checklist III, question 5.
- Question 4: The response to this question is intended to amplify the material provided in response to Checklist I.
- Question 5: Often a telephone call to your counterparts in other regions will be sufficient to respond to this item. Include in this section cost to patients to access services.
- Question 7: Usually these questions are dealt with in the systematic review or other literature.
- Question 8: Often any new technology is one among many that provide the same or similar service or similar or better technologies are being developed. It is important for the Region to know whether the technology being considered is

not only the best adapted for its needs but that it is not likely to be superseded in the near future.

Checklist III: Impact on Operations

(to be completed by requestor and project team if applicable)

The purpose of this checklist is to examine internal operational factors related to the introduction of the new technology. This helps to determine the Regional requirements related to the new technology and identify any barriers or limitations. This checklist is also designed to determine the potential impact of the technology on quality of care.

The initial screening for a new technology must include all information. Subsequent screenings need only be updated.

For quality of care, see Palliser Region Dimensions of Quality in General Assessment Criteria.

Notes on Specific Items:

- Questions 1 & 2: These responses update and/or elaborate on the material presented in Checklist I.
- Question 4: See General Assessment Criteria
- Question 5: This question is intended to expand on the information included in Checklist I. The question of growth is an important one and affects the potential introduction of a new technology in many ways. The growth in use of a technology may result from a number of factors, such as:
    - an increase in the number of patients with the target condition or disease perhaps
    - from becoming more acceptable to patients, or
    - from general population increase or in-migration of such patients, or
    - from changes in the environment that may increase the incidence or prevalence of the condition or disease
    - an increase in the capacity of the region to provide the service
    - indicator creep (so-called), where the indications or criteria for use expand over time to encompass new patient groups and new conditions or diseases

Checklist IV: Financial Assessment

(to be completed by project team in cooperation with Finance)

The initial acquisition cost of a new technology – i.e. whether it is expensive or inexpensive – is not indicative of the potential operating costs. A technology may have a low initial acquisition cost, but its frequency of use could result in considerable operating costs. In order to assess the financial impact of the new or newly applied technology, a comparison of the operating costs of the new versus the current technology is required. It is important that this analysis reflects the cost for all departments affected by the implementation of the new technology. These costs include service contracts and maintenance expense where relevant.

If the results of Checklist III have identified multiple options (e.g. overnight or day surgery in Regional facilities or private clinic), economic evaluation of each option, which is considered feasible, should be completed.

Given the importance of growth in the use of technology to future costs, a three to five year budget forecast is necessary. This can be prepared by taking the one year costs and applying a percentage increase that reflects the projected growth in volume.

Notes on Financial Assessment Templates A through D

- Section A - Identify start up costs for technology being evaluated:
  - A1 – Initial cost of item(s) including equipment and delivery
  - A2 – Training on new equipment for all impacted departments (include wages, travel, course fees, etc). Also include training done by external sources.
  - A3 – Installation costs from external sources or suppliers (may be included in set up), and internal renovations required (e.g. need for additional fire protection systems).
- Section B – Identify annual increase or decrease in operating costs:
  - B1 – Staffing costs for all impacted departments
  - B4 – Offsetting revenue (e.g. out of province, interregional transfer, patient pay, contributions from partners, etc). This should only include revenue that is not currently being earned from other Palliser services.
  - Fill out more than one form if Years 2 and 3 operating costs differ from Year 1. Take into account the expected growth in use.

- Section C – Identify costs or savings to clients and families:
  - Include any costs to clients (transportation, medication, supplies)
  - Include any savings to clients (e.g. if Palliser now offers the service, clients don't have to travel to Calgary for the day).
- Section D – Cost Justification
  - Include an approximate cost for items that are described elsewhere in the assessment that can be justified in financial terms (e.g. reduced inpatients days, reduced outpatient visits, etc.) See Finance for approximate costs for each of these items if they are not known.

APPENDIX I: LIST OF HTA AGENCIES AND OTHER SOURCES OF INFORMATION

- Alberta Health Technologies Decision Process
  (780) 415-2858
- Alberta Heritage Foundation for Medical Research
  www.ahfmr.ab.ca
- Canadian Agency for Drugs and Technologies in Health (formerly CCOHTA)
  www.cadth.ca
- Institute of Health Economics
  www.ihe.ab.ca
- Alberta Consultative Health Research Network
  www.achrn.org
- Cochrane Collaboration
  http://www.cochrane.org/index0.htm
- NHS Center for Reviews and Dissemination
  www.york.ac.uk/inst/crd/report4.htm
- SEARCH Canada
  www.searchca.net.
    - Local consultant: Don Flaming, Research Development, SEARCH Canada, (403) 529-4824; e-mail: dflaming@mhc.ab.ca
- Calgary Health Technology Implementation Unit
  http://www.calgaryhealthregion.ca/htiu/link.html#content
- Center for Health Services and Policy Research
  http://www.chspr.ubc.ca/
- Blue Cross Blue Shield Association
  http://www.bcbs.com/tec/tecassessments.html
- University of Birmingham
  http://www.publichealth.bham.ac.uk/euroscan/public_search.html
- National Institute for Health and Clinical Excellence
  http://www.nice.org.uk/

APPENDIX II: CHECKLISTS

REQUEST FOR SUGGESTIONS FOR IMPROVEMENT TO DOCUMENT

Please send questions or suggestions for improvement for this document to Laurel Stretch, lstretch@palliserhealth.ca.

Section or page	Question, Problem or Current Wording	Suggested Change

Checklist I: Pre-Assessment Consultation

(to be completed by proposal sponsor, usually clinical service lead, department supervisor requesting technology)

Site/Program: Date Requested: Required by:

Requester Name: Contact Info:

Health technology being considered (short name):

Please see the Guide to Assessing Health Technologies in the Palliser Health Region for assistance on completing this checklist.

SECTION A: TECHNOLOGY DESCRIPTION

1. **Describe the proposed initiative or change in practice in relation to the <u>current standard of care</u> in the Region.** Briefly describe the health benefits and any other expected benefits, including how the technology improves access and patient/staff safety.

.

2. Provide a brief assessment (1 or 2 sentences) of how the technology supports the Region's priorities (see the Palliser Region's business plan) and quality dimensions (acceptability, appropriateness, effectiveness, and efficiency).

.

3. Provide a summary of relevant studies or vendor supplies information supporting adoption of the technology.

.

4. Is this technology:

☐ New ☐ New On Trial ☐ Replacement of :

5. Is this technology currently in use (include other regions)? ☐ Yes ☐ No

If yes: • Where is it being used and for what purpose?

6. Is this technology: ☐ therapeutic ☐ diagnostic ☐ screening/prevention ?

7. Will this technology ☐ replace ☐ supplement or ☐ enhance current technology?

SECTION B: PRELIMINARY NEEDS ASSESSMENT

1. Describe the patient groups or population for whom this technology will be valuable.

.

2. Describe the criteria or clinical indications for the use of the technology in the proposed target population. Will these criteria or indicators change as the region and patients become more familiar with the technology?

.

3. Estimate the current and future demands for this technology. How many people meeting the above criteria or clinical indications would be expected to access the technology over the next 3-5 years within the Region? (When estimating demand, keep in mind any expansion of the criteria or indicators mentioned above.)

.

4. Does this technology have Health Canada approval?

   ☐ Yes Please provide the Health Canada classification *(Class 0 – 4)* _____

   ☐ No: Is it approved elsewhere? ☐ No ☐ Yes – specify:

   ☐ N/A, on trial.

   Are there any other regulatory or credentialing issues?

5. Will adoption of this technology duplicate existing services? Are similar services available elsewhere? Where?

.

6. Are there appropriately trained personnel in the region to use the technology effectively? What training or credentialing might be needed for staff involved in using the technology?

.

7. Does this technology require renovations to existing space, such as ORs, diagnostic facilities, recovery rooms, etc? Are there any system changes that might be needed to use this technology effectively in regional facilities?

.

8. Provide the basic or standard unit cost of the technology as well as the expected capacity. If a replacement technology, provide estimates of incremental costs or savings. Include anticipated capital costs and expected amortization periods as well as operating and training costs, where possible.

.

9. Briefly describe any effects or implications on other departments within the health Region or on organizations outside of the Region? Identify opportunities for partnerships with other RHAs or community/private organizations.

.

10. How urgent is it that this technology be acquired? Discuss the rapidity of change in relation to this technology and the opportunities that might be available now. What would be the consequences if this technology is not considered this year?

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11. Are those that will be affected aware of the potential effect and in agreement with acquiring and implementing the new technology? Include signatures of supervisors of potentially affected departments.

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12. Is this technology currently under review by other regions, provincially, or nationally?

.

13. Does the technology require a privacy impact assessment?

☐ Yes ☐ No

Requestor Signature	Date of Completion
Department Head or Lead Physician Signature	Impacted Department Signature
Impacted Department Signature	Impacted Department Signature
Impacted Department Signature	Impacted Department Signature

IF NO NEED IS ESTABLISHED FOR THE TECHNOLOGY THEN DO NOT PROCEED

Senior Administration Signature	Date

☐ Regional review ☐ Refer to Provincial Review ☐ Do not review

Checklist II: Effectiveness of Technology

(to be completed by requestor and project team, if applicable)

** (attach supporting documents)

Health technology being considered (short name):

Please see the Guide to Assessing Health Technologies in the Palliser Health Region for assistance on completing this checklist.

Where appropriate, include the results of a systematic review (See Guide) of the relevant literature.

1. Describe the Technology **– in relation to the current standard of care in the Region**. Include anticipated outcomes and improvements in patient care, outcome measures and the effectiveness of the new technology in comparison with current technologies in the description.

   .

2. Is this technology being requested or changed as a result of an audit by the CSA, WCB, or other regulatory body? If yes, describe. If no, leave blank.

   .

3. Has one or more Health Technology Assessment(s) been done on this technology? What are the results? Attach bibliography and abstracts, if available.
4. Identify what the new technology is replacing or, if an entirely new technology, identify the indications for the use of the technology (treatment/diagnostics), or describe the reapplication of an existing technology (i.e. to new population, disease, condition).

   .

5. If this technology is being used in other health regions/settings/provinces, what are their guidelines for use (including costs to patients)?

   .

6. Can this technology be accommodated in an alternative setting? (e.g. common location, physician office, shared services, private/community location). If yes, describe.

   .

7. Does this technology require specialized training or credentialing for physicians or other health care staff?

   .

Are the outcomes or the effectiveness of the procedure dependent on having a great deal of experience or practice actually using the technology?

.

8. Other than what is now in use, are there alternatives to this technology that Palliser Health Region could use instead? If yes, what are they?

   .

   How well does the technology being considered outperform these alternatives on outcomes or effectiveness? Describe.

   .

Complete report needs to be signed by the review team leader and department head or lead physician.

Checklist III: Impact on Operations & Implementation Considerations

(to be completed by requestor and project team, if applicable)

**(attach supporting documents, as appropriate)

Health technology being considered (short name):

Please see the Guide to Assessing Health Technologies in the Palliser Health Region for assistance on completing this checklist.

1. Describe and assess the appropriateness of this technology or change to the Palliser Health Region.

   What are the objectives for the introduction of this technology or reapplication of technology?

   How does it support the Palliser Health Region's business plan (Mission, Philosophy, Role Statement, Goals & Objectives. (See Palliser Health Authority - Mission & Values)?

   What will be its likely effect on relevant business plan outcome measures?

   .

2. Explain how the technology supports the business plans of the Programs or Departments directly involved in implementing the technology?

   What is the effect on program or departmental outcome measures?

   .

3. How does the technology affect patients' access to care (see Guide)? Describe positive and negative effects.

   If Palliser residents to be served by this technology are now being served in another health region or through an organization not funded by the Palliser Health Region, where are the services being supplied and by whom?

   .

4. How does the technology improve the quality of care or patient safety (see Guide) in the Palliser Health Region?

   .

5. What are the drivers of growth for the use of this technology?

   How will this growth be managed (e.g. screening procedure, physician referral) to prevent overuse or misuse?

   Will this require additional resources?

   .

6. Is there a need to control access to the technology?

   How will access to this technology be controlled in order to prevent overuse/misuse?

   .

7. Are there enough Palliser Health Region technical and support staff currently trained/certified to operate this technology efficiently? If not, what education/training is required? Include ongoing requirements in addition to initial training.

   What are appropriate staff/patient ratios for the effective use of this technology?

   .

8. Describe how this technology integrates with existing technology within the region.

   Will it generate additional demands on existing technologies, e.g. DI or lab?

   Does this technology need to be part of a wider program of intervention or care for its effective use, e.g. an obesity management program for bariatric surgeries?

   .

9. Does implementation of this technology require additional space and/or renovation work? Please provide provisional plans and estimates, as required.

   .

10. Describe the effect this technology may have on other programs, departments and/or services (e.g. laboratory, OR, booking, maintenance, housekeeping, information systems, etc.).

    .

Complete report needs to be signed by the review team leader and department head or lead physician.

Checklist IV: Financial Assessment

(to be completed by project team, in cooperation with Finance)

**(attach supporting documents)

Health technology being considered (short name):

Please see the Guide to Assessing Health Technologies in the Palliser Health Region for assistance on completing this checklist.

For each program option being considered (e.g. surgery with overnight stay, day surgery, out-patient surgery, partnerships with other regions or community organizations):

1. Compare the current standard of care and the requested technology:

   a) Identify workload volumes, include assumptions supporting them.

   .

   b) Determine staffing levels (regular and relief) including support areas.

   .

2. If replacing current technology, identify the technology that will be removed from service and replaced with new technology. (Schedule of substitution must be included)

   .

3. Attach completed Financial Assessment templates A through D (see Guide):

   .

PROJECT SIGNATURES:

Requestor Signature	Date of Completion
Department Head or Lead Physician Signature	Impacted Department Signature
Impacted Department Signature	Impacted Department Signature
Impacted Department Signature	Impacted Department Signature