Role of Advanced Medical Technologies in Cancer Treatment and Care

Americans expected to receive a cancer diagnosis this year

20%

Increase since 1971 in Americans living with or after a cancer diagnosis

Medtech industry investment in R&D → products and technologies to diagnose and treat cancer patients

STAGES OF CANCER CARE

RISK ASSESSMENT

Diagnostic testing to indicate elevated risk of developing cancer

20-25%

Hereditary breast cancers linked to BRCA1 and BRCA2 mutations

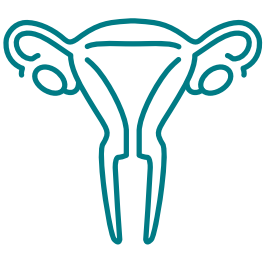
EXAMPLE: GENETIC TESTING FOR BREAST CANCER

SCREENING AND EARLY DETECTION

Diagnostic testing to evaluate likelihood of developing cancer at early stages

70%

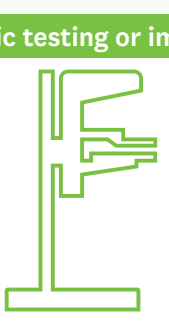
Reduction in cervical cancer deaths due to diagnostic tests



EXAMPLE: PAP AND HPV TESTING FOR CERVICAL CANCER

DIAGNOSIS

Diagnostic testing or imaging technologies to detect presence and type of cancer



20%

Reduction in risk of dying from breast cancer due to mammography

EXAMPLE: MAMMOGRAPHY FOR BREAST CANCER

STAGING AND PROGNOSIS

Diagnostic testing, imaging technologies or surgery to assess severity of cancer or risk of reoccurrence

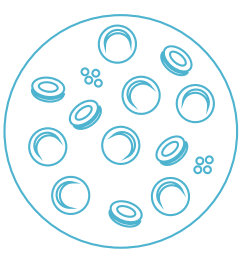
77-100%

Sensitivity of breast MRI for detecting tumors in high-risk women

EXAMPLE: MRI FOR BREAST CANCER

THERAPY SELECTION

Diagnostic testing to indicate which treatments will and won't work



1 in 1,000,000

Cancer cells detectable by the most sensitive PCR tests

EXAMPLE: PCR TEST FOR LEUKEMIA

TREATMENTS

Medical technologies to remove a tumor, attack cancer cells or lessen pain (palliative care)

50%

U.S. cancer patients undergo radiotherapy to shrink or eliminate tumors or to prevent local recurrence

Minimally-invasive

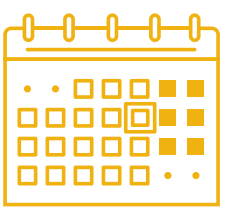
Recent surgical advances have allowed for shorter recovery times and less pain for patients

EXAMPLE: SURGERY AND RADIOTHERAPY FOR MULTIPLE CANCER TYPES

MONITORING/TREATMENT ASSESSMENT

Diagnostic testing to determine whether treatment is working and if cancer will return

Concentrations revealed in CEA tests determine whether cancer has progressed or recurred within 6 months



EXAMPLE: CEA TESTING FOR MULTIPLE CANCER TYPES

FOLLOW-UP CARE

Medical technologies to help treat the short- and long-term side effects of cancer treatment, and improve quality of life

79%

Decline in the rate of cellulitis (infection) following use of a compression device for lymphedema

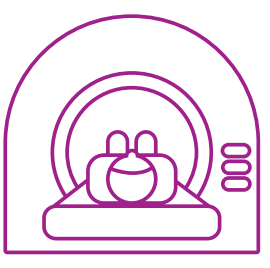
EXAMPLE: COMPRESSION DEVICE FOR LYMPHEDEMA

END-OF-LIFE CARE

Radiotherapy to improve quality of life for those whose disease has progressed beyond treatment

60-80%

Advanced cancer patients who experience persistent pain



EXAMPLE: RADIOTHERAPY

SOURCES:
AdvaMedDx. "The Value of Molecular Diagnostics: Advancing Cancer Treatment and Care." http://dx.advamed.org/sites/dx.advamed.org/files/resource/valuemoleculardiagnostics1.pdf

AdvaMedDx. "An Overview of Diagnostic Test Technologies." http://dx.advamed.org/sites/dx.advamed.org/files/resource/overviewofdiagnostictestingtechnologies.pdf

AdvaMed analysis of Evaluate Ltd. market research database and member company survey of R&D spending in 2015.

AdvaMedDx. "The Value of Diagnostic Tests in Detecting Cervical Cancer." http://dx.advamed.org/sites/dx.advamed.org/files/resource/The_Value_of_Diagnostic_Tests_in_Detecting_Cervical_Cancer.pdf

Breast Cancer Facts & Figures 2015-2016. American Cancer Society http://www.cancer.org/acs/groups/content/@research/documents/document/acspc-046381.pdf

American Association for Cancer Research. "AACR Cancer Progress Report 2016." http://cancerprogressreport.org/2016/Documents/CPR2016.pdf

National Cancer Institute. "BRCA1 and BRCA2: Cancer Risk and Genetic Testing." https://www.cancer.gov/about-cancer/causes-prevention/genetics/brca-fact-sheet#q13

US National Library of Medicine National Institutes of Health. "Imaging Surveillance of Patients with Breast Cancer after Primary Treatment: Current Recommendations." https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4347260/

Wallach MD, Jacques. Interpretation of Diagnostic Tests: Eighth Edition. Philadelphia: Lippincott Williams & Wilkins, 2007. Print. https://books.google.com/books?id=FCbXDdOvB9IC&printsec=frontcover#v=onepage&q&f=false

Pinar Karaca-Mandic, PhD1 ; Alan T. Hirsch, MD2 ; Stanley G. Rockson, MD3 ; Sheila H. Ridner, PhD, RN4. The Cutaneous, Net Clinical, and Health Economic Benefits of Advanced Pneumatic Compression

Devices in Patients with Lymphedema. Journal of American Medical Association – Dermatology. October 2015.

Daut RL, Cleeland CS. The prevalence and severity of pain in cancer. Cancer 1982; 50:1913–1918.

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