

Diagnosis to Survivorship - The Spectrum of Cancer Care from a Family Physician Perspective: Part 1

Tips for Expediting Cancer Diagnosis

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Learning Objectives

- Recognize which symptoms, physical exam or lab findings should prompt a workup for cancer
- Identify key diagnostic tests to order
- State the importance of staging investigations
- Appreciate the need to support patients through their cancer journey



6 Steps to Diagnosing Cancer

Decreasing the diagnostic interval.....

History Physical Exam Initial Investig -ations Biopsy Staging General Health



Step 1. History



- Establish "risk" of having malignancy
- Stratify risk with:
 - Obviously concerning symptoms
 - Re-presentation with same symptoms
 - Multiple symptoms concurrently
 - Family and personal medical history
 - Smoking, EtOH
- Beware the "low-risk-but-not-no-risk"
- Trust your gut! (PPV 9.8!)

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Step 2. Physical Exam



- Look for an obvious primary
- Nodal examination
 - Malignant nodes are usually >2cm, painless and hard
- Look for evidence of metastatic disease
 - Masses
 - Jaundice
 - Effusions
 - Ascites
 - Hepatomegaly
 - Increased ICP

Step 3. Initial Investigations



- Is there something to biopsy?
- Where is best place to biopsy?
- Includes:
 - Laboratory, Tumour Markers
 - Preliminary Imaging



Step 3. Initial Investigations: Lab

- Ensure recent CBC, INR and Cr/eGFR for possible biopsy and imaging
- Look for laboratory abnormalities signaling cancer, metastases or paraneoplastic syndrome

Recommended Laboratory Workup for Diagnosis of Malignancy

- Complete Blood Count
- Creatinine
- Electrolytes
- · Calcium, Magnesium, Phosphate
- · Liver function tests, including Albumin
- International Normalized Ratio
- Lactate dehydrogenase
- Serum protein electrophoresis if clinically indicated
- · Tumour markers as appropriate



Step 3. Initial Investigations: Tumour Markers

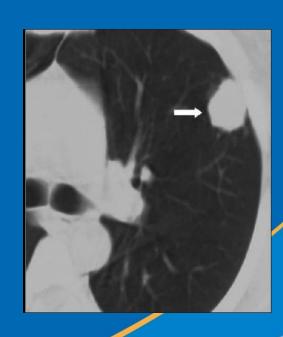
- Facilitate diagnosis when investigating specific malignancy
- Should not be ordered indiscriminately
- Can be helpful in the case of unknown primary

Tumour Marker	Tumo <u>u</u> r type
CEA	Colon, hepatocellular
CA 19-9	Pancreatic, biliary tract
Urinary 5- HIAA	Neuroendocrine
CA 15-3	Breast
CA 125	Ovarian
PSA	Prostate
AFP	Hepatocellular, Germ cell
B-HCG	Germ cell, Gestational trophoblastic
Thyroglobulin	Thyroid



Step 3. Initial Investigations: Preliminary Imaging

- Least invasive test with lowest radiation exposure
- Initial imaging depends on site:
 - Breast Diagnostic mammogram, ultrasound
 - Thoracic Chest x-ray
 - Abdomen Ultrasound
 - Adenopathy Ultrasound
- If very high suspicion of malignancy, can order CT as initial imaging



Step 3. Initial Investigations: Preliminary Imaging

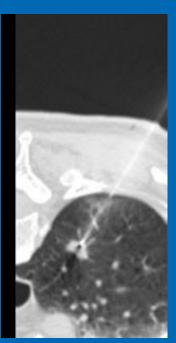
 If initial imaging confirms suspected malignancy, in most cases will need definitive imaging (CT) before biopsy

Diagnostic Assessment Program



Step 4. Biopsy - "What is it?"







- Tissue diagnosis needed prior to referral
- Biopsy the most accessible site or the site which gives most information
- Get the most tissue
- If no easy percutaneous site consider:
 - Cytology from effusions/ascites
 - Excision of lymph nodes
 - Endoscopy/bronchoscopy/ colonoscopy/mediastinoscopy etc...

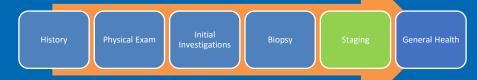
As soon as you have pathology, you should refer to a specialist





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Step 5. Staging - "Where is it?"

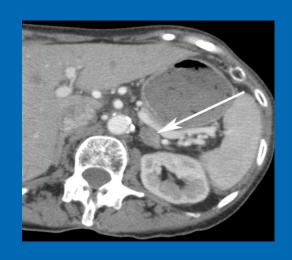


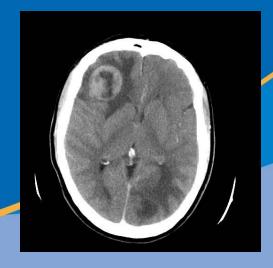
- Expedite treatment by initiating staging investigations
- Staging helps determine:
 - Treatment options
 - Risk



Step 5. Staging

- Sites of imaging should be guided by:
 - Typical pattern of metastases for the cancer you have diagnosed
 - Any symptoms your patient has
 - Risk of spread of cancer (aggressivity)
- Use contrast (depending on renal function)







Step 6. General Health



- Schedule regular f/u appointments
 - Share results
 - Ensure timely investigations
 - Answer questions
 - Address symptoms
 - Provide emotional support
 - Advance care planning & goals of care discussions
 - Ensure appropriate management plan



Step 6. General Health

- Smoking cessation
- Vaccination
- Fertility preservation

https://fertilityaid.rethinkbreastcancer.com/decision-aid/



National Center for Chronic Disease Prevention and Health Promotion (US) Office on Smoking and Health. *The Health Consequences of Smoking*—50 Years of Progress: A Report of the Surgeon General. Atlanta, GA: Centers for Disease Control and Prevention; 2014.

Taylan, E., & Oktay, K. H. (2017). Current state and controversies in fertility preservation in women with breast cancer. World journal of clinical oncology, 8(3) 241.

Dohle, G. R. (2010). Male infertility in cancer patients: review of the literature. *International journal of urology*, *17*(4), 327-331.



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Resources

- Cancer Care Ontario
 - https://www.cancercare.on.ca/
- National Comprehensive Cancer Network
 - http://www.nccn.org/
- BC Cancer Agency
 - http://www.bccancer.bc.ca/
- Thrombosis Canada Perioperative Anticoagulant Algorithm
 - https://thrombosiscanada.ca/tools/?calc=perioperativeAnticoagulantAlgorith
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