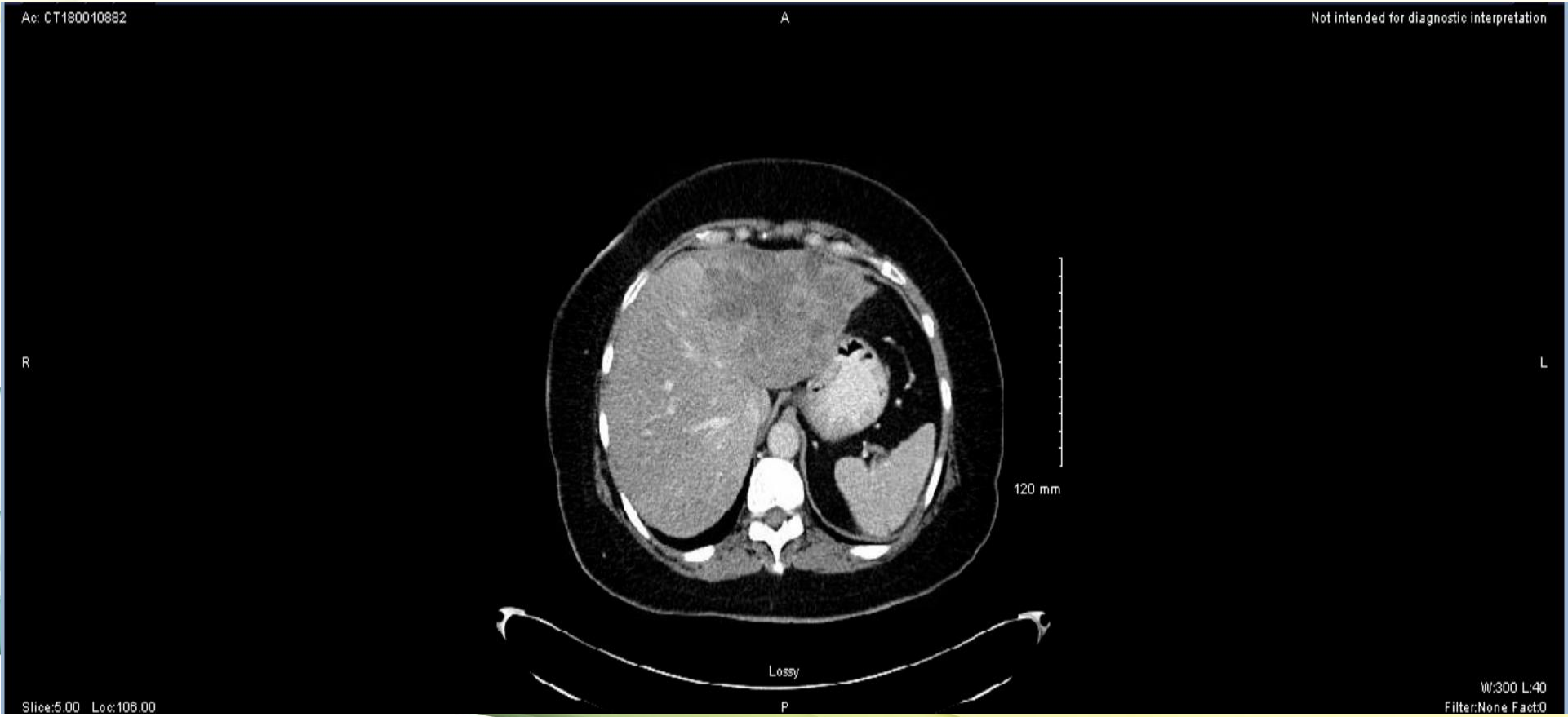


Case Hx

- Mrs. CP 69 female non smoker
- Presented with 20 lb weight loss
- Some changes in bowel habit but no bleeding
- Upper abdominal discomfort
- PMH
 - HTN, Dyslipidemia, GERD
 - Breast reduction surgery
 - Surgeries for non-malignant indications (chole, bladder, partial hysterectomy)

- Symptoms worsened
- Family Doctor requested CT abdomen and pelvis
- CT sent her to ER admitted under general services
- Not jaundiced ECOG 1



Assuming patient at home and you have CT results faxed to your office...

What is the next step in management:

- Send ER
- Order Bx
- Send to LDAP
- Call Medical Oncology
- Call patient and inform of referral to WRCC

Carcinoma of Unknown Primary

A practical introduction / approach

Tarek Elfiki MD MRCPI, Medical Oncologist

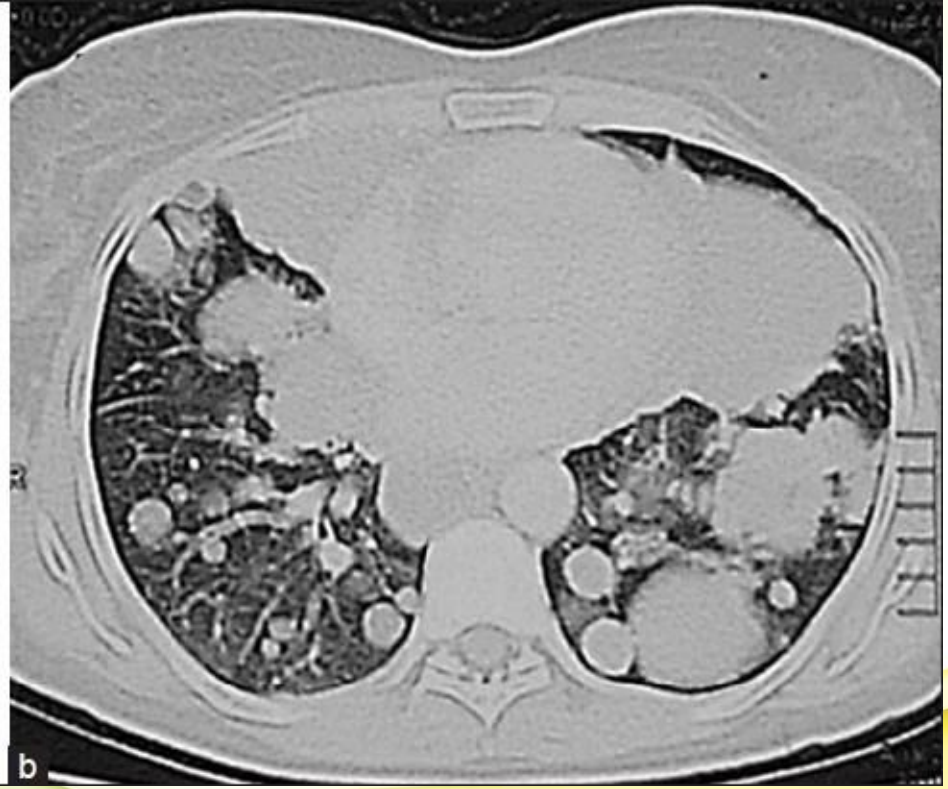
- Patient admitted
- USS GUIDED biopsy requested
- Medical Oncology consulted
- Pathology not yet completed

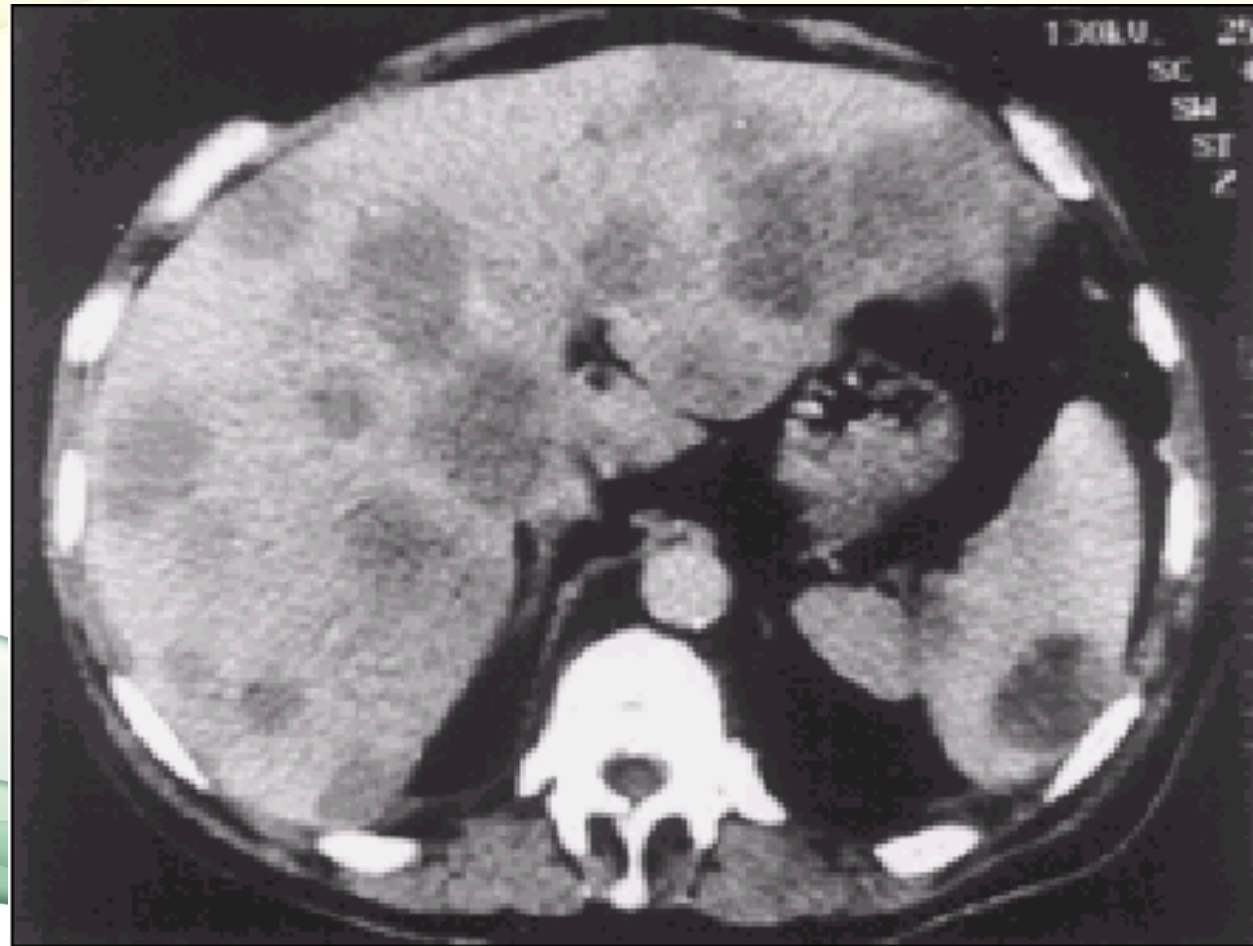
Objectives

- Presentations
- Complete the evaluation of CUP
- **Rapidly** recognize favourable subsets
- Understand prognoses

Common Scenarios

- Encounter
 - Your investigating
 - Weight loss
 - Fever
 - Pains
 - Swelling, edema
- Finding
 - Bilateral lung metastasis
 - Single or multiple liver nodules
 - Neck node





What is the next best step?

- Refer to Medical Oncology
- Request admission to hospital
- Send patient to ER
- Call for expedited testing
- All of the above

Introduction

- Life expectancy 6-9 month , < 12 month
- 2-4% of all cancers (more common than Lymphoma)
- 7th-8th common cancer, 4th common cause of cancer death
- ? Male > female
- Despite maximum investigation, only 20 %-30% will have a primary source

Introduction / WHY

- Appropriateness of investigation
- Refer to appropriate service (Rapid Dx Programs)
- Survival in stage 4 cancer
 - Lung 12 month migrated to > 2 years and evolving
 - Colonic 36-48 month up to 60 month
 - GIST 5-8 years, median not reached
 - Ovarian and Ppca 30% 5 years, 50% 3 years
 - Pancreas 12-16 month from 3-6
 - Breast ca very long 2-11 years
 - Prostate ca very long

Definition

- Defined as a diverse group of cancers with poor prognosis
- Clinical absence of primary
- Early dissemination
- Aggressiveness
- Unpredictable course
- Adequate testing performed

Definition Requirements / Patient Evaluation

(In the presence of tissue diagnosis of Ca)

- Complete history and physical
 - Breast, Prostate, DRE, Pelvic
 - Testicular examination
 - Lymph nodal exam and Skin
- CBC (Anemia), renal, liver, LDH, PSA, FOB
- Mammogram or USS breast (MRI)
- CT Scan Chest Abd and Pelvis
- Endoscopies (ENT, Upper and Lower GI)
- ***Performance Status***

History Points

- Exposure
 - Smoking, asbestos , dye... infection, Hepatitis , HIV, Alcohol
- PMHx
 - **Recent DM**
 - **Recent DVT**
 - Prior ca, prior cancer treatment
 - Biological for non malignant disease
 - Autoimmune disease
 - Immune modulator (e.g. post transplant)
- Fam Hx

Optimal Investigation

- Histology
 - Immunohistochemistry, molecular
- Imaging
 - CXR, USS, Mammogram
 - CT, MRI, ? PET
- Endoscopy
 - ENT
 - Upper / lower GI scopes
 - Colposcopy

Examination

- **Please do**

Tumour Markers

- PSA
- CEA
- Ca 19.9
- Ca 125
- Ca 15.3
- AFP
- Beta HCG

PATTERNS

Prostate
Colonic ca
Biliary / upper GI
Ovarian
Lung
HCC
Germ cell

Histology of CUP

Histological type	Incidence
Adeno carcinoma	50%
Poorly diff Ca	35%
Squamous cell ca	10%
Undifferentiated Neoplasm	5%

Histology, Immunohistochemistry Profile

Cancer Type	Characteristic Immuno
Lymphoma	CLA
Sarcoma	S00, Vimentin
Melanoma	S100, HMB-45
Carcinoma	A/E 1/3 Pancytokeratin
Adeno Ca	CK7, CK20, PSA
Squamous Ca	CK5/6, P63
Germ cell ca	AFP, Beta HCG

Cancer Type	Characteristic Immuno
Lung	TTF-1
Colon	CK7- , CK20+ , CDX2+
Ovary	WR-T1, ER, Mesothelin
Pancreas/Biliary	CK7-, CK20-, CDX2+
Prostate	PSA, PAP

Favourable Subsets

- Isolated Axillary Nodes in Female
- Sq cell ca, Mid – High cervical nodes
- Female with abdominal papillary serous ca
- Colonic cancer profile CUP
- NET
- Extra Gonadal Germ cell ca
- Solitary metastatic deposit

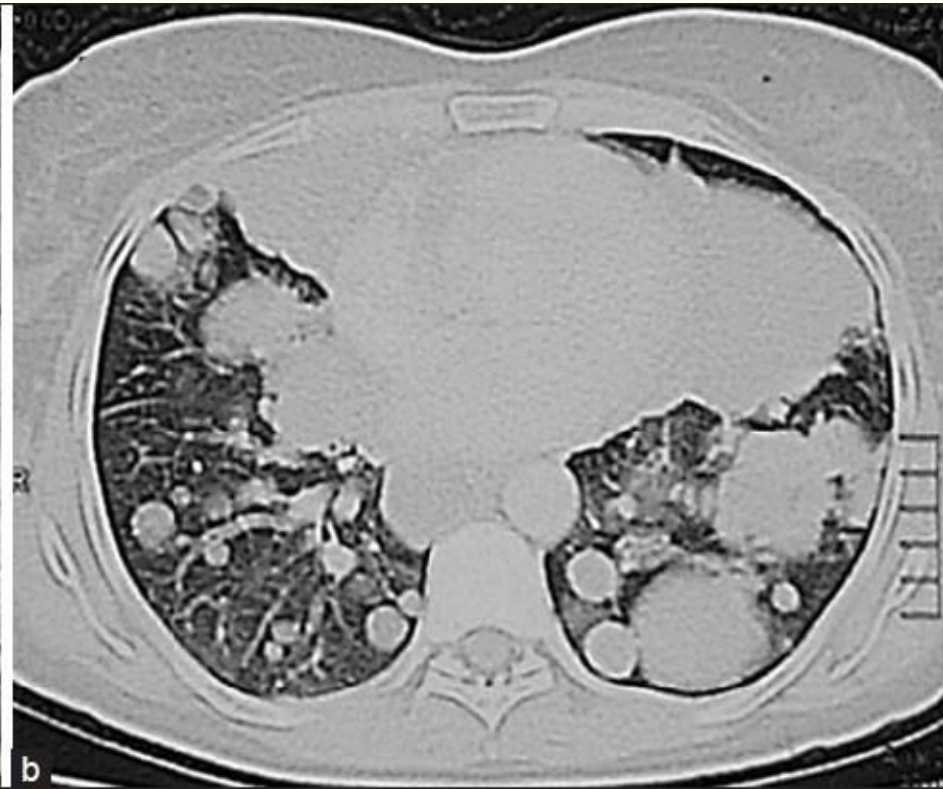
Treatment Decisions/Approach

- Palliative
 - Systemic
 - Radiotherapy
 - Surgery
- Location and pattern
- Histology
- Clinical scenario
- Performance status
- Exclusion and inclusion tests
- Funding mechanism

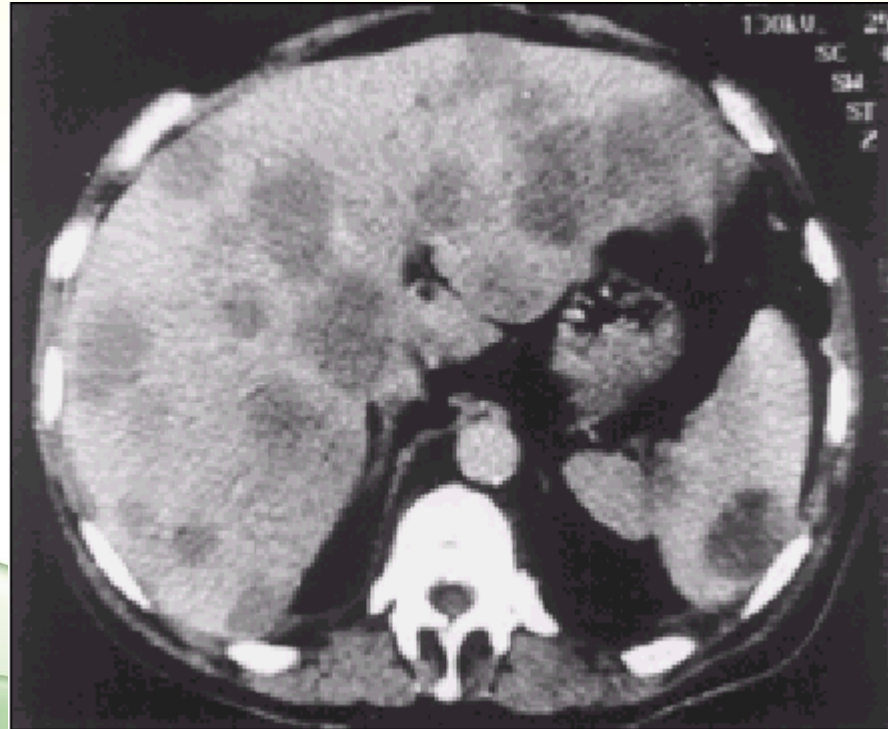
Systemic Therapy (Chemotherapy and Others)

- Principal/Goal
 - Palliative
 - Cross Cover disease site
 - Side effect profile
- Type
 - Platinum based
 - Gemcitabine bases
 - Taxane Based
- Dual agents
- Response

CASE 1



CASE 2



SUMMARY

- Diverse
- Challenging
- Require time
- Need full workup, often fails to locate origin
- Diverse prognosis
- Please call for advice
- Please call pathologist
- Please call to expedite test

Metastatic Cancer With Unknown Primary

**Akram Elkeilani MD, FRCPC
Chief and Medical Director of Pathology
and Lab Medicine, Windsor Regional hospital**

Systematic Approach

A) Factors to consider when evaluating:

- Age
- Sex
- Location of metastasis

B) Factors that help to narrow down the differential diagnosis:

- Imaging studies
- Gross pathology
- Tumor cell type
- Particular histopathologic features in selected tumors
- Immunostains and molecular study

Location of Metastasis

- **Head and Neck:** Upper aerodigestive tract & Thyroid & Melanoma & Lung & Stomach & pancreaticobiliary & Germ cell tumors
- **Axilla:** Breast & Lung & Melanoma
- **Intra-abdominal:** GI tract & Pancreaticobiliary & GYN & Lymphoma & Sarcoma & Germ cell tumors
- **Inguinal:** GU tract & GYN & Lower GI tract & Melanoma
- **Bone:** Prostate & Breast & Lung & Kidney & Thyroid
- **Children:** Rhabdomyosarcoma & Ewing Sarcoma & Wilms Tumor & Germ cell tumors & Neuroblastoma & Embryonal carcinoma & Hepatoblastoma & Osteosarcoma & Burkitt lymphoma

Histopathologic features that favor selected sites

- **Clear cells:** Kidney
- **Signet ring cells:** Stomach & GI tract
- **Neuroendocrine:** Lung & GI tract
- **Sarcomatoid:** Lung & Kidney
- **Biphasic:** Gynecologic & Lung

- **Formulate a differential diagnosis based on cytomorphology**
- **Use small panels of immunohistochemistry**
- **Exclude certain diagnoses after correlating histomorphology, immunohistochemistry and clinical-radiologic findings**
- **Be cautious when the triple test (clinical, radiologic and pathologic) findings do not fit a specific entity.**

CK+ S100 -
LCA - VIMENTIN +/-

CK - S100 -
LCA + VIMENTIN +

CK - S100 +
LCA - VIMENTIN +

CK - S100 -
LCA - VIMENTIN +



CARCINOMA



LYMPHOMA



MELANOMA



SARCOMA

Organ / Tumor Specific Immunohistochemical Markers

- Lung Adenocarcinoma: **TTF-1, Napsin A**
- Breast Carcinoma: **ER, GATA3, GCDFP-15**
- Squamous Cell carcinoma: **P40, CK5/6, P63**
- GI Tract: **CK20, CDX2, CDH17**
- Prostate: **PSA, PSAP**
- GIST: **CD117 (CKIT), DOG1**
- Melanoma: **S100, Mart-1, HMB-45, MiTF, SOX10**
- Mesothelial origin: **Calretinin, WT1, D2-40, Mesothelin**

	CK20 ⁻	CK20 ⁺
CK7 ⁺	<ul style="list-style-type: none"> • Lung • Breast • Upper GI ADC • Pancreatic/biliary ADC • Endometrial/ endocervical ADC • Thyroid • Thymic CA • Salivary gland duct CA • Hepatocellular CA, fibrolamellar type • Ovarian serous CA • Anal duct CA • Mesothelioma 	<ul style="list-style-type: none"> • Urothelial CA • Esophagus ADC • Gastric ADC • Small bowel ADC • Mucinous ADC of lung • Ovarian mucinous CA • Pancreaticobiliary ADC • Cholangiocarcinoma
CK7 ⁻	<ul style="list-style-type: none"> • Hepatocellular CA • Clear cell renal cell carcinoma • Adrenal cortical CA • Prostate ADC • Small cell carcinoma • Squamous cell CA • Germ cell tumors • Neuroendocrine neoplasm • Medullary CA of the colon 	<ul style="list-style-type: none"> • Colorectal ADC • Small bowel ADC • Bladder ADC • Merkel cell carcinoma • Appendiceal ADC • Mucinous ADC of lung • Papillary renal cell carcinoma, type II

Abbreviations: ADC, adenocarcinoma; CA, carcinoma; CK, cytokeratin; GI, gastrointestinal.

Breaking Bad News to Cancer Patients

Dr. Wendy Kennette MD, CCFP (PC)

Advances in cancer treatments over the years have made it easier to offer patients hope at the time of diagnosis but have also increased the need to address difficult conversations along the cancer journey.

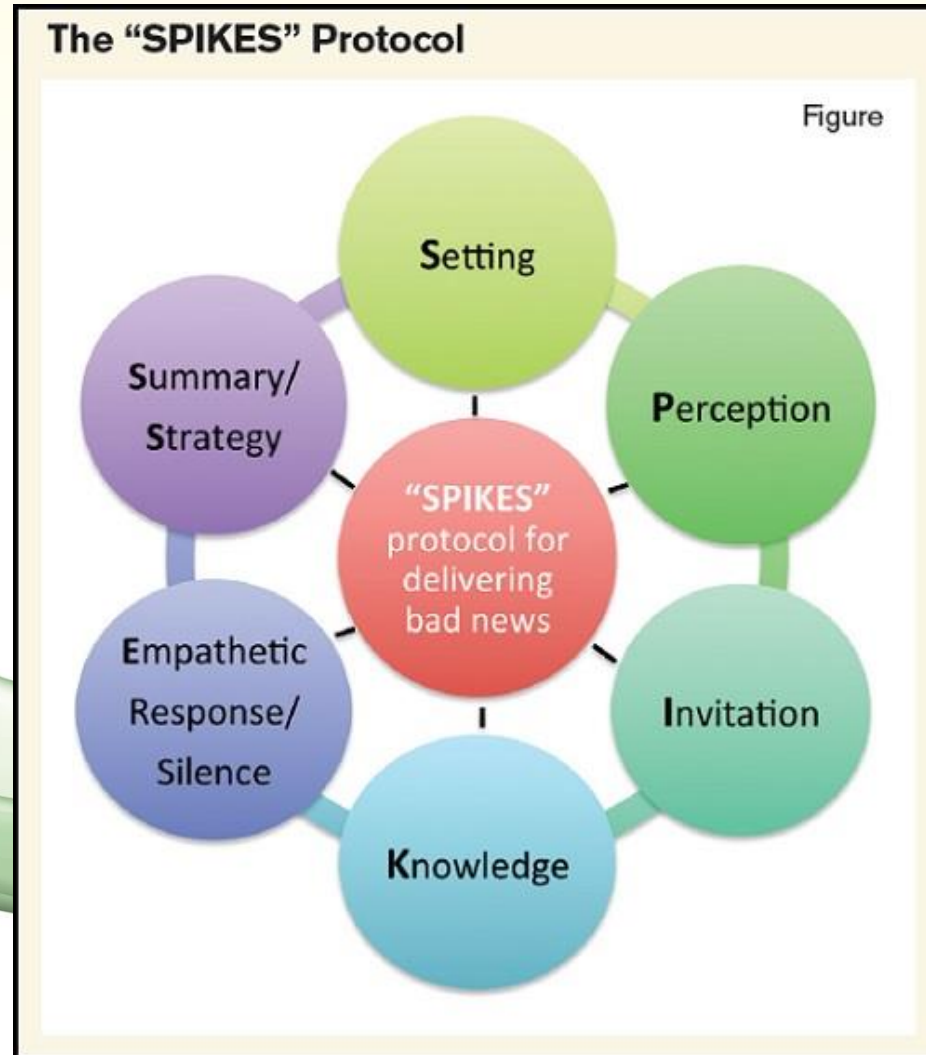
New Situations Requiring Serious Illness Conversations

- Disease recurrence
- Metastatic disease
- Treatment failure
- Failure to tolerate treatment side effects
- Advanced care directives
- End of life care

Breaking Bad News

- Complex communication task that involves:
 - Responding to patients' emotional reactions
 - Involving patients in decision-making
 - Dealing with patients' expectations for cure

Strategy for Delivering Bad News: SPIKES



Setting

- Arrange to meet in a private location
- Involve significant others
- Sit down with no barriers between you and the patient, allowing for physical contact if appropriate
- Maintain eye contact
- Avoid distractions such as phones or pagers

Perception

- Ask the patient and/or family what they think is going on
 - What have you been told about your medical situation so far?
- This engages them and makes them feel that what they think matters
- Based on this information, you can address any misunderstandings, and then reframe and educate successfully

Invitation

- This step asks permission to discuss bad news
- Most patients want full disclosure but some do not and we need to clarify their wishes
- Examples:
 - “Shall I share the results of the scan with you now?”
 - “Is this a good time to tell you what I believe is happening?”
- If patients don't want to know details, offer to discuss at a later time or talk to family/friends

Knowledge

- Provide a brief summary of what we knew, what we hoped for and what we now have learned
- Speak slowly, use simple terms (avoid medical jargon), make eye contact
- Give information in small chunks and check periodically for the patient's understanding
- Explain what the bad news means

Emotions/Empathic Response

- Patients and families often need time after hearing bad news as they can be overcome with emotion
- Allow silence- it is powerful and valuable
- When you do speak, acknowledge what your patient is feeling:
 - “ I know that this isn’t what you wanted to hear. I also wish the news were better.”
- Empathic and validating statements support our patients
- They help reduce the patients’ sense of isolation and validates their feelings and thoughts as normal.

Summary/Strategy

- Summarize and decide on the next steps
- These steps may be treatment options, when to meet next, directly addressing prognosis and/or discussing palliative care
- Sharing responsibility for decision-making with the patient may also reduce any sense of failure on the part of the physician when treatment is not successful.

Breaking Bad News

- Effective communication plays a major role in facilitating our patients' adaptation to illness, appropriate decision making and quality of life throughout the trajectory of their serious illness.
- As physicians, we need to develop a level of comfort with handling the intense emotions of our patients and take it upon ourselves to develop the ability to break bad news skillfully and sensitively.

References

- Baile WF, Buckman R, Lenzi R *et al.* SPIKES- a six-step protocol for delivering bad news: application to the patient with cancer. *Oncologist*. 2000; 5: 302-311.
- Hausdorff J. Ask the Hematologist: SPIKES protocol for delivering bad news to patients. *The Hematologist*. 2017; 14(4).

Assuming patient at home and you have CT results faxed to your office...

What is the next step in management:

- Send ER
- Order Bx
- Send to LDAP
- Call Medical Oncology
- Call patient and inform of referral to WRCC