Advanced Concepts in Protocols
Pancreas Adenocarcinoma or NET

Pre-Surgical resection-
  Dual phase indicated to assess for resectability
  Dual phase indicated for accurate tumor measurements

Post Surgical resection-
  Dual phase imaging not needed; the tumor has been removed. CT is done to look for local recurrence or metastases so PV phase is adequate
Renal Cell Carcinoma

Surveillance of known lesion
  Multi phase indicated

Post RFA/Cryo/Partial nephrectomy
  Multiphase needed to assess treatment margins well

Post Nephrectomy
  CT is done to look for metastases – single phase is adequate
Adrenal Nodules

Multiphase CT
- Indicated to characterize a new/newly discovered nodule
- Write tech note to call MD to check I- images before contrast is given- if < 10HU, skip the contrast series

If the indication for scan is follow up of a known nodule:
- If its been previously characterized, then I- abd only to measure size
- If previously attempted to be characterized and it wasn’t, non contrast abd only to measure size
- If not previously characterized, then consider multiphase
Liver MRI

Eovist/Hepatobiliary contrast agent
  Highly sensitive for metastatic disease
  To differentiate FHN from Adenoma
    * think of in females with liver lesion being characterized

Dotarem/Interstital contrast agent
  Preferred at DHMC for Cirrhosis/HCC detection
Prostate MRI

G-/G+
Done for surveillance, elevated PSA, tumor detection

G-
Done for XRT planning only
Considerations for Oral Contrast

Post Surgery
  Indicated in almost all cases to differentiate abscess from fluid in bowel, anastomotic leaks, etc.

Multiphase scans of organs
  Generally oral not needed if intent of scan is for solid organ tumor

Pain/? infection
  Generally indicated for non-specific pain (* except omitted in ED patients due to acuity/time)
  Give longer prep for inpatients due to slow transit ~3 hours
Hypovascular Tumors

These tumors enhance less avidly than normal liver.

Scan during PV phase, when liver is highest attenuation so contrast between the hypoenhancing tumor and the liver will be the greatest.

*All GI luminal adenocarcinomas:*

- Gastric
- Small bowel
- Colon
- Rectal
- Breast
- Lung NSCLC
- Pancreatic adenocarcinoma
Hypervascular Tumors

These tumors enhance earlier and MORE avidly than normal liver.

Scan during late arterial phase, when the tumor enhancement is maximal and will contrast with the hypoenhancing liver.

Examples:

- HCC
- Adenoma
- Focal Nodular hyperplasia
- Ocular melanoma
- Pancreatic neuroendocrine
- Carcinoid tumor
- Pheochromocytoma
- Medullary thyroid
- +/- Renal call