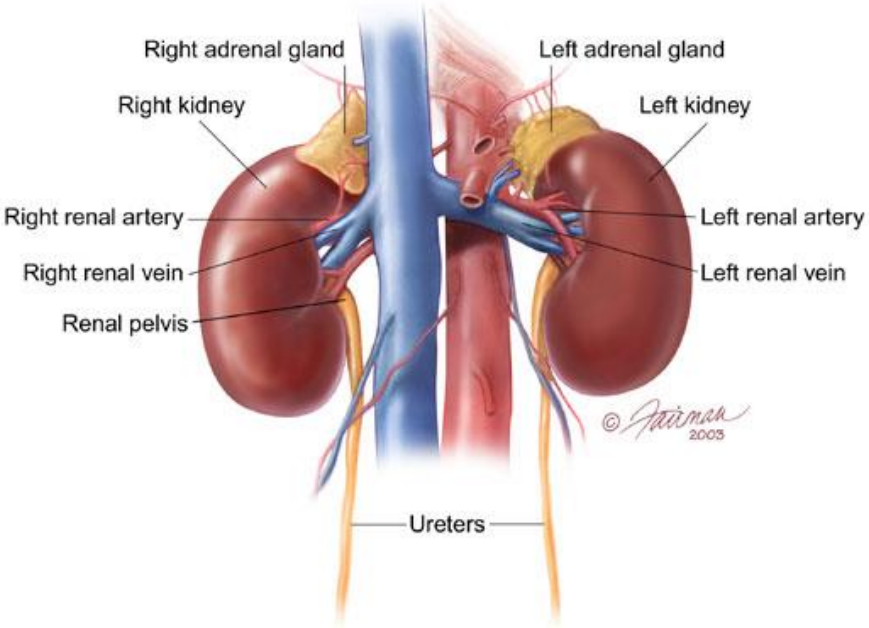
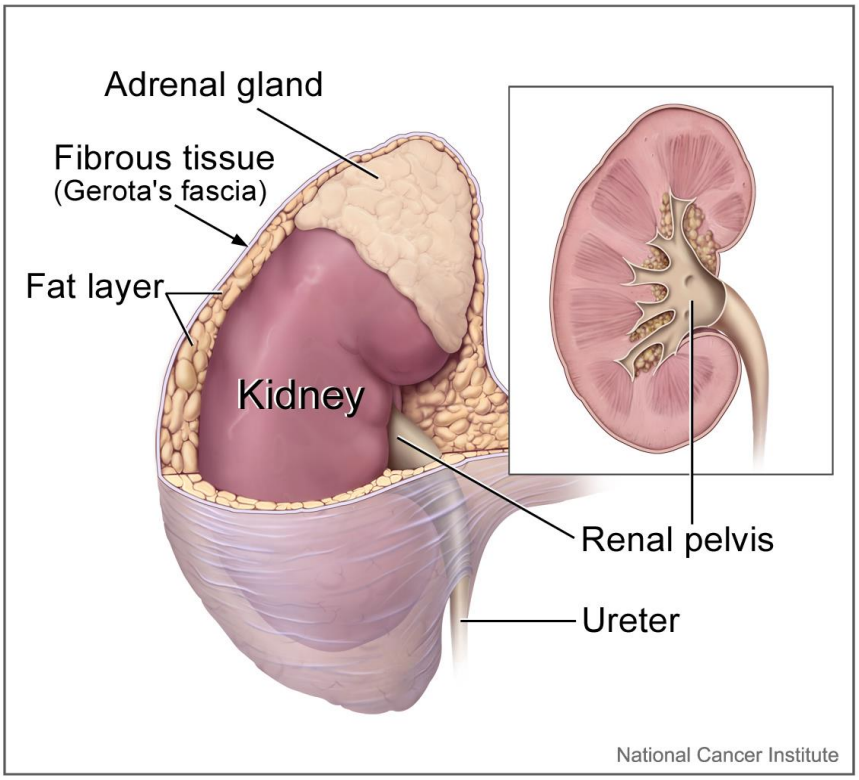
Genitourinary Grossing Guidelines

Specimen Type: NEPHRECTOMY FOR TUMOR





Genitourinary Grossing Guidelines

Procedure:

1. Weigh and measure overall dimensions of specimen. Ink the surface of Gerota's fascia or perinephric fat, either the entire surface or the surface overlying a palpable tumor.
2. Orientation: from anterior to posterior -> vein, artery, ureter
3. Inspect perinephric fat for adrenal, tumor extension; palpate for hilar lymph nodes.
4. Locate ureter (often with a staple or clip at the distal end). Measure the length and diameter of ureter. Locate renal arteries and vein, look for tumor thrombus in the renal vein.
5. Remove vascular and ureteral margins and place in cassette, en face.
6. Place a probe into ureter, and extend it into renal pelvis. Open ureter along its length. Examine ureteral mucosa.
7. At renal hilum, push one probe through renal pelvicalyceal system and push through parenchyma of superior pole of kidney.
8. Place second probe in renal pelvicalyceal system and push through parenchyma of inferior pole of kidney.
9. Using 2 probes as guides, divide kidney in two complete halves, cutting through the renal pelvis. Completely open pelvis, calyces, and renal veins.
10. Measure kidney.
11. Look for renal sinus invasion, renal vein invasion, and capsular invasion by tumor. Measure and describe adrenal (? tumor involvement) if present.
12. Photograph half of the specimen or both halves.
13. Describe tumor: single/multiple lesions, dimensions, demarcation, color, texture, hemorrhage/necrosis/cystic degeneration, extension into renal sinus/into renal vein/through capsular surface, areas of sarcomatoid differentiation.
14. After taking sections of tumor, bread loaf the uninvolved kidney in 1 cm interval, look for additional lesions, describe uninvolved kidney: external surface, cortex, medulla, and pelvis.
15. Look for hilar lymph nodes.

- For any solid or solid-cystic tumor > 2 cm → collect tissue for cytogenetics
  - Place order for cytogenetics (Karyotype only) – Directions for ordering below
  - Place Karyotype label on RPMI container
  - Send sample to cytogenetics lab on next available courier
    - DO NOT PLACE SPECIMENS IN BACK FRIDGE OF LAB
- For tumors < 2 cm, cystic tumor without solid component, or urothelial cancers → No need to collect tissue for cytogenetics

Gross Template:

MMODAL Command: "INSERT KIDNEY TUMOR"

It consists of a [*right, left****], [*weight****] gram, [*measure in three dimensions****] cm total nephrectomy. The kidney alone measures [*measure in three dimensions****] cm. The ureter measures [***] cm in length x [***] cm in diameter. The renal artery measures [***] cm in length x [***] cm in diameter. The renal vein measures [***] cm in length x [***] cm in diameter.

Sectioning reveals a [*measure in three dimensions****] cm [*describe lesion- circumscription, encapsulation, color, consistency****] located in the [*upper, mid, lower pole****]. The lesion extends [*into*

Genitourinary Grossing Guidelines

*the renal sinus, perinephric fat, to Gerota's fascia, into the pelvicalyceal system, into the renal vein, adrenal gland, other****]. The lesion measures [***] cm from the Gerota's fascia/perinephric fat margin and [***] cm from the renal vein margin.

The remaining parenchyma is [*unremarkable, or describe additional pathology****]. The corticomedullary junction is [*distinct/ poorly defined****]. The pelvicalyceal system [*is/ is not****] dilated. [*Describe calculi if present, and if the* pelvicalyceal *system is dilated****] The mucosa of the collecting system is [*smooth, roughened, granular, thickened, other****]. The ureter [*is unremarkable, describe stenosis, dilation, lesions present****]. No additional lesions or masses are identified. A portion of tumor tissue is submitted in RPMI for cytogenetics studies [*delete if not collected/Directions for ordering on nephrectomy gross manual page****]. [*Describe presence of absence of adrenal gland, if present remove, weigh and measure, and comment relationship to mass****] Representative sections are submitted. Gross photographs are taken.

INK KEY:
Black Capsule/Gerota's fascia, perinephric fat

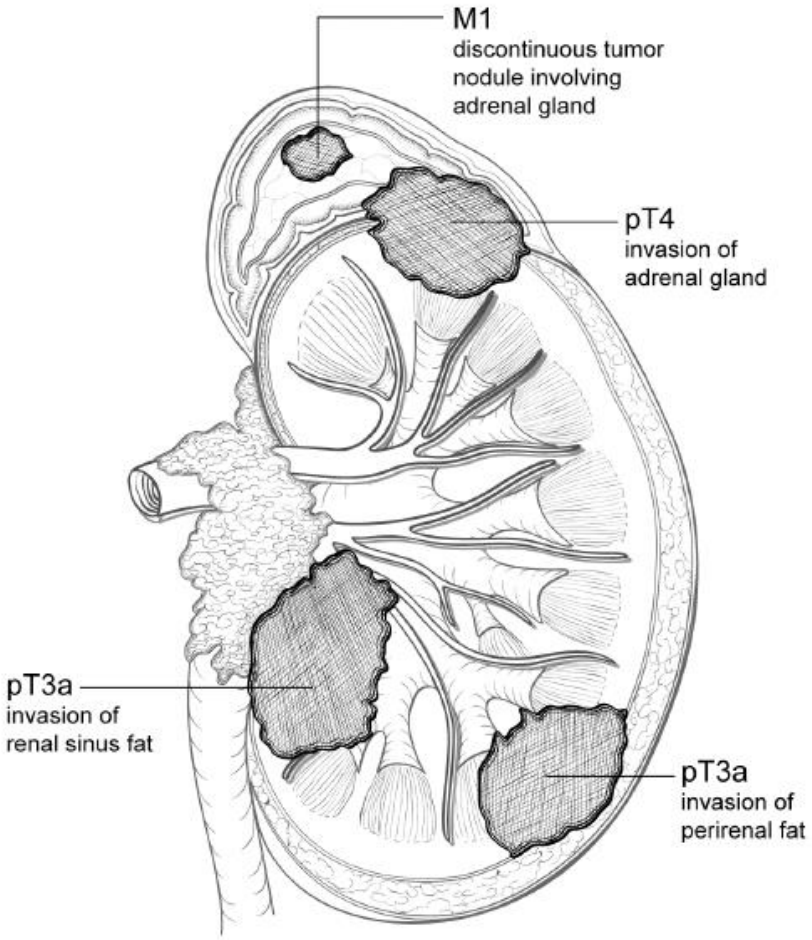
[*insert cassette summary****]

Cassette Submission: 8-10 cassettes

- One cassette of non-neoplastic parenchyma (at least 2 cm away from tumor), try to include cortex, medulla, and calyceal mucosa
  - **This should be placed in cassette A1 (It will be a pink block, which includes 1 PAS stain).**
- 1-2 cassette of vascular and ureteral margins, shave
- **If there is an adherent tumor thrombus involving the renal vein margin, ink the proximal margin and take perpendicular sections of tumor thrombus with the nearest renal vein margin**
- Tumor sections:
  - If tumor is <3 cm→ submit tumor entirely
  - If tumor is >3 cm → submit 3 sections +1 section per cm, up to 12 sections
  - Section to demonstrate renal sinus fat invasion
    - 1 section if tumor grossly invades sinus fat
    - 4-5 sections if no gross invasion
  - Sections to demonstrate the perinephric fat invasion
  - Sections to demonstrate vein invasion
  - Sampling areas of different color and consistency
    - 1 section with necrosis
    - 1 section with adjacent unremarkable kidney
- Additional sections should be taken as needed
  - Sections of satellite nodules
- One cassette of adrenal gland (if present)
- Submit all hilar lymph nodes (if present)

- **WILM'S TUMOR**
  - 1 section per 1 cm of tumor, up to 8 cassettes
  - Note: Any small foci beneath the capsule or adjacent to the pyramids may represent nodular renal blastema and representative sections should be obtained of these areas. As a guide, there should be one section per cm. of maximum dimension of the tumor

up to 8 cm. A map of the tumor labelling the exact site of the sections taken must be included with the gross.



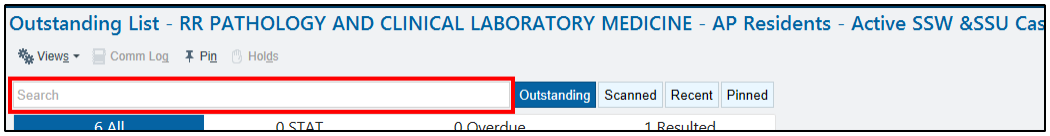
ORDERING CYTOGENETICS

At times Cytogenetic testing needs to be performed on existing cases. This job aid describes the scenario for placing add-on Karyotype orders on existing cases.

Placing an order for Karyotype on an existing case

1. Open the **Case** in the Outstanding List Editor

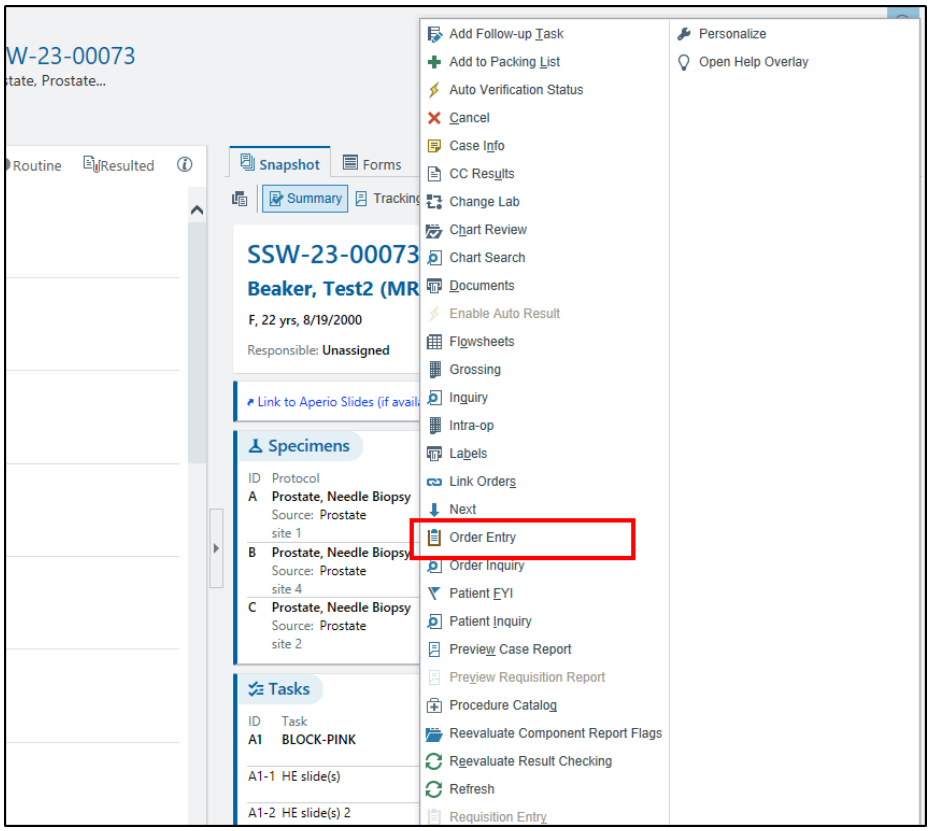
   a. Within the Outstanding List Editor, **scan case label** to bring up case, or enter the **Case ID** in search field in the Outstanding List Editor.



2. Verify that the correct case is open.

3. Click the **Actions** button in the top right corner of the activity.

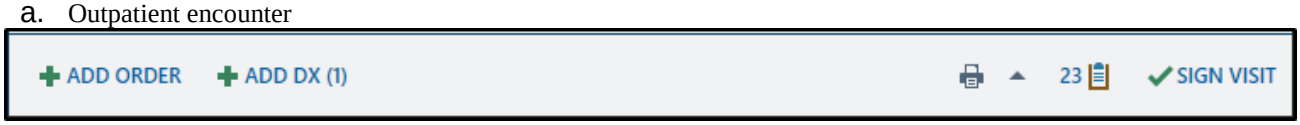
4. Click **Order Entry**.



5. Based on the patients encounter (Inpatient or Outpatient) you will be presented with the following:

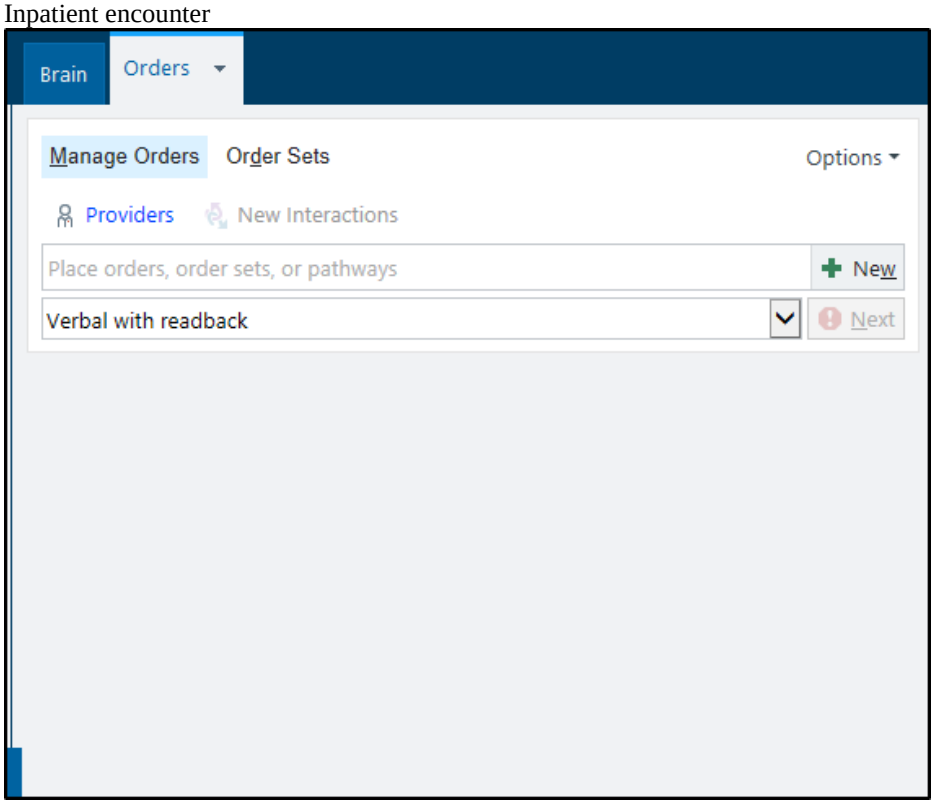
Genitourinary Grossing Guidelines

a. Outpatient encounter

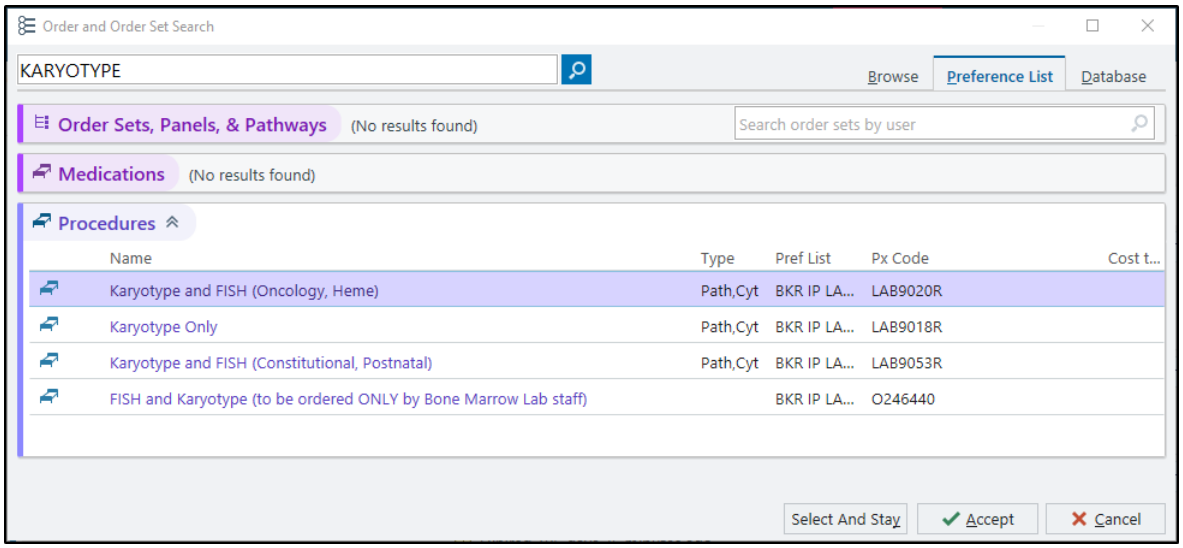


i. Select **Add Order**

b. Inpatient encounter



6. Find the order you want to place as an add-on.



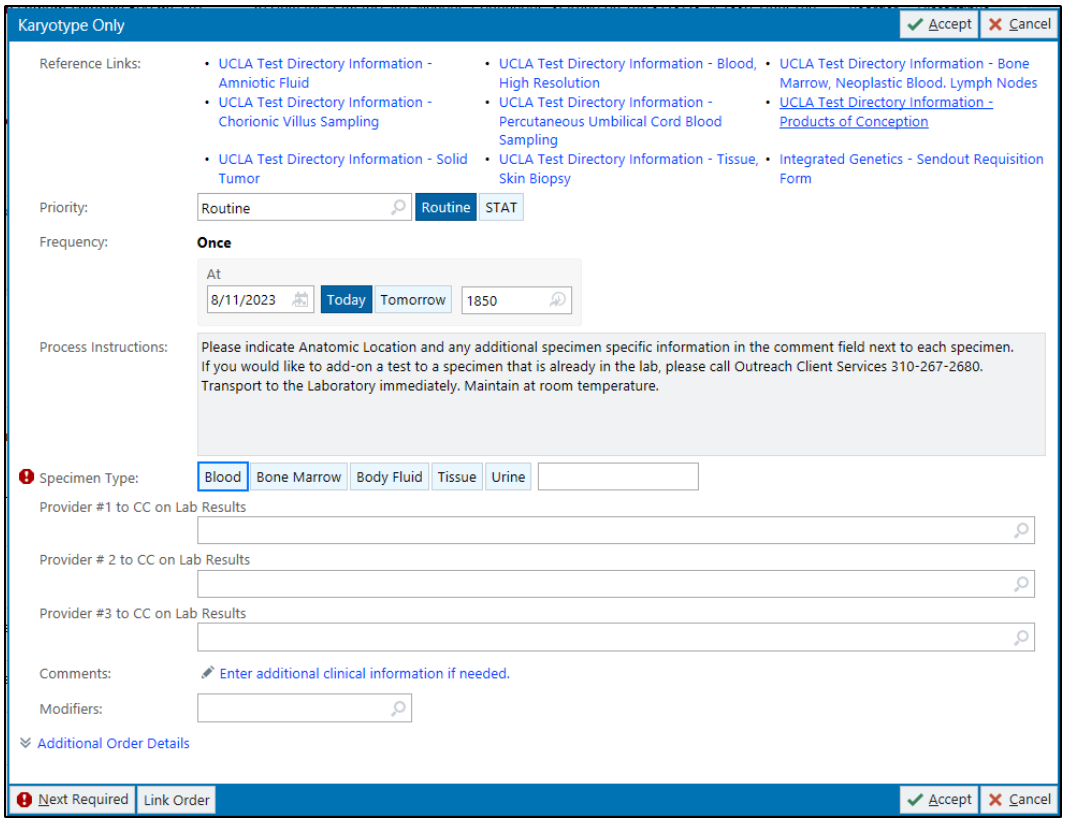
Refer to table below for order-specific descriptions and codes.

Cytogenetic Orders (Karyotype)

Order Name	Order Code	Order Description
Karyotype Only	**LAB9018R**	**This is the main order to be used if Karyotype is only being requested.**
Karyotype and FISH (Oncology, Heme)	LAB9020R	This order is to be used when both Karyotype and FISH is requested on Oncology or Hematologic cases.
Karyotype and FISH (Constitutional, Postnatal)	LAB9053R	This order is to be used when both Karyotype and FISH is requested on Constitutional or Postnatal cases.

7. Indicate the **Specimen Type** for the order.

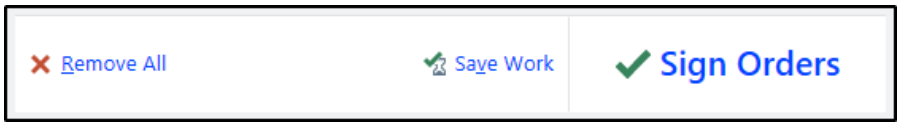
8. Select the appropriate answers to all questions and add the relevant clinical information in the *Comments* field.



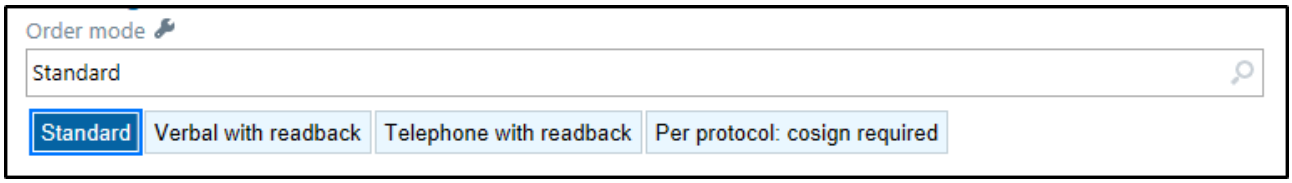
9. Click **Accept** when complete.

10. Once all the order details are filled out:
    a. Outpatient: click **Sign Orders** at the bottom of the screen.

    b. Inpatient: click **Sign Orders** at the bottom of the screen.



11. Select the appropriate **Order Mode**



12. Verify the correct **Authorizing Provider**.

Do not select a UCLA pathologist as either the **Ordering** or **Authorizing Provider.**

---

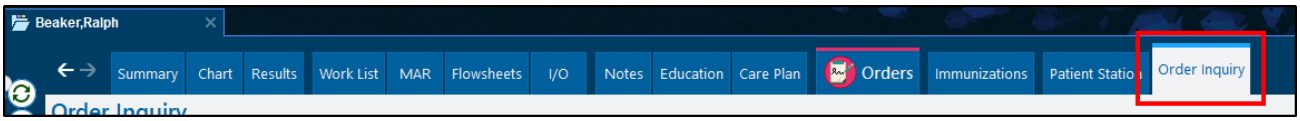
13. Click **Accept**.

***Note**:

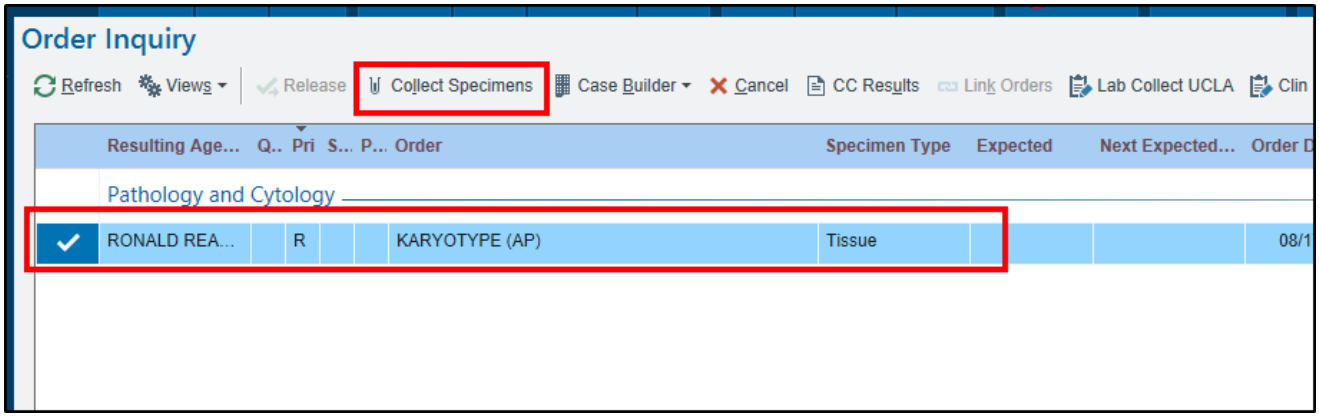
If the add-on testing was requested by a different provider than the provider who placed the original Tissue Exam order via e- mail, telephone, or fax, you should change the name of the provider to reflect the name of the provider who is actually is requesting the add-on testing. In such case, the order mode should be changed to **Verbal with Readback**.

Specimen Collection and Label Printing

1. Within the patients encounter, select the **Order Inquiry** tab.

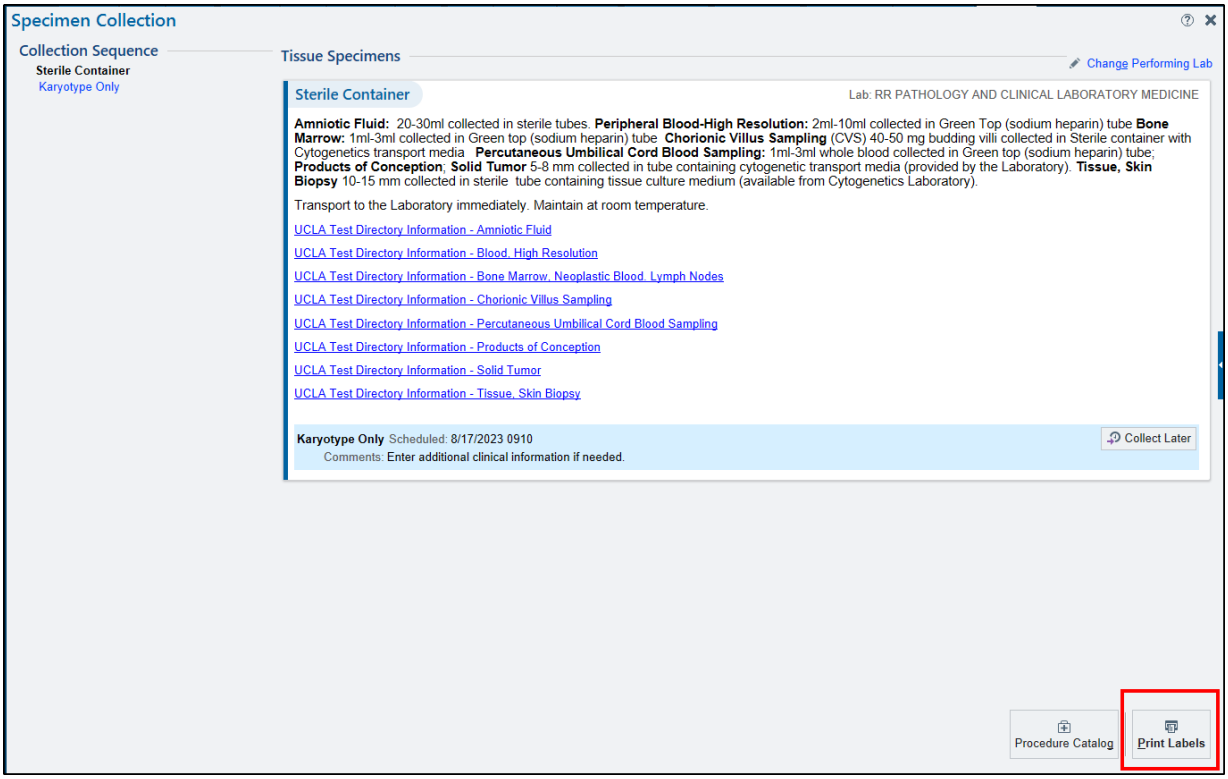


2. Select the **Karyotype** order that was placed on the patient and click **Collect Specimens**.

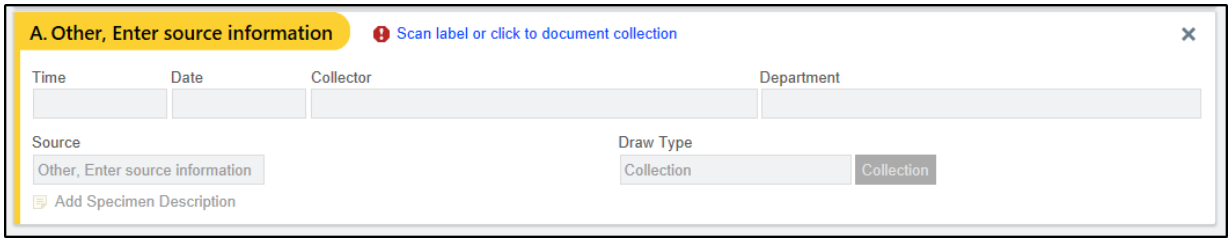


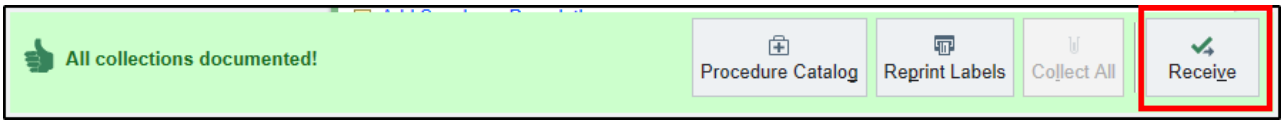
3. Select Print Labels within the **Specimen Collection** activity.

Genitourinary Grossing Guidelines



4. Using the barcode scanner, scan the printed label to document collection.



Note: If barcode scanner is unavailable, click the *Scan label or click to document collection* hyperlink and document all the appropriate fields (if needed).

5. Once the collection required collection information has been filled in, select **Receive or Accept** and the window should automatically close.