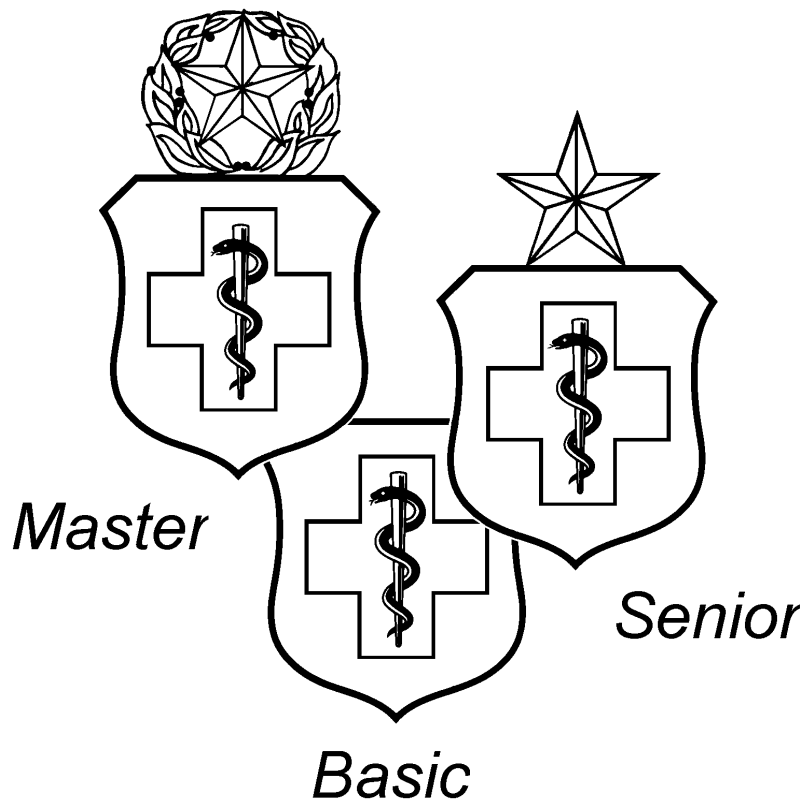


DEPARTMENT OF THE AIR FORCE  
Headquarters US Air Force  
Washington, DC 20330-5000

QTP 4N1X1B-1  
24 March 2015  
*Certified Current on, 14 July 2022*

## SURGICAL SERVICE SPECIALTY

## UROLOGY SURGICAL SPECIALTY



**ACCESSIBILITY:** Publications and forms are available on the e-publishing website at [www.e-publishing.af.mil](http://www.e-publishing.af.mil) for downloading or ordering.

**RELEASABILITY:** There are no releasability restrictions on this publication.

THIS PAGE INTENTIONALLY LEFT BLANK

**QTP 4N1X1B**  
**SURGICAL SERVICE SPECIALTY**  
*Volume B1: Urology Surgical Specialty*

**TABLE OF CONTENTS**

Introduction	ii
<b>Module 1.      Perform Clinical Procedures</b>	
<i>Catheterization of the Urinary Bladder – Female</i>	1
<i>Catheterization of the Urinary Bladder – Male</i>	3
<i>Intramuscular Injections</i>	5
<i>Intradermal/ Sub-Q Injections</i>	7
<i>Perform Macrourinalysis</i>	9

OPR: Career Field Manager  
Certified by: SMSgt Judy M. Hickman (4N1X1 CFM)  
Supersedes: QTP 4N1X1 18 December 2009 Pages: 6

## ***INTRODUCTION***

1. This qualification training package (QTP) was developed to make available a training aid which will assist Surgical Service Technicians to develop technical skills essential to performing specialized tasks. The tasks are broken down into teachable elements, which help the trainer guide the trainee into becoming proficient with the tasks. The QTP will also aid the task certifier when evaluating trainees for task certification.
2. As a trainer, go through each module (lesson) and identify which QTP tasks are appropriate for the trainee's duty position (items identified in the CFETP as core tasks are mandatory), then determine the order in which you want the trainee to learn about each subject area. Direct the trainee to review the training references to better understand the objective of each module. Go through the steps in the task performance with the trainee and allow for enough time to learn each step; some objectives may take more time than others. Remember, the objective of the QTP is to ensure the trainee can perform each task thoroughly. When the trainee receives enough training and is ready to be evaluated on an objective, follow the evaluation instructions. Use the performance checklist as you evaluate each objective. If the trainee successfully accomplishes the objective, document appropriately in the individual's training record. If the trainee does not accomplish the objective, review the areas needing more training until the objective is met. Conduct a feedback with the trainee on each module. After the trainer has ensured and documented that the trainee is qualified to perform the task, the trainee should be evaluated by a certifier.
3. The goal of the developers of this QTP is to publish a useful document for trainers and trainees that will meet Air Force needs under the concepts outlined in the Career Field Education and Training Plan (CFETP). We value your expertise in meeting this goal. If you find discrepancies in this QTP, or have suggestions for its improvement, or if you have suggestions for other areas that may benefit from a QTP, please let us know about them by contacting the below individual:

***MSgt Derrick Weese  
59 MDOG/SGCXG  
2200 Berquist Ave, Suite 1  
JBSA Lackland, TX 78236  
DSN 554-5769  
Email: derrick.weese@us.af.mil***

***SMSgt Judy Hickman  
60 SGCS/CCC  
Travis AFB, CA 94535  
DSN 799-2385  
Email: judy.hickman@us.af.mil***

**PERFORM CLINICAL PROCEDURES*****CATHETERIZATION OF THE URINARY BLADDER - FEMALE***

<b>SUBJECT AREA:</b>	Perform Clinical Procedures
<b>TASK(s):</b>	Catheterization of the Urinary Bladder in the Female Patient
<b>CFETP/STS REFERENCE(s):</b>	19.5.1 Catheterizations
<b>TRAINING REFERENCE(s):</b>	<u>Lippincott Manual of Nursing Practice</u> , 10 <sup>th</sup> Edition
<b>EQUIPMENT REQUIRED:</b>	Sterile gloves Disposable sterile catheter kit with single-use packet of lubricant Antiseptic solution Sterile Drape Sterile container for culture
<b>OBJECTIVE:</b>	In a clinical setting, perform a catheterization of the urinary bladder in a female patient.
<b>REMARKS/NOTES:</b>	The principal danger of catheterization is urinary tract infection, which is associated with increased morbidity and longer, more costly hospitalization. Catheterization requires the same aseptic precautions as a surgical procedure. Ensure trainee follows strict aseptic technique. Use the smallest catheter capable of providing adequate drainage.

**EVALUATION INSTRUCTIONS:**

1. This QTP should be evaluated during actual performance of the tasks.
2. After the trainee has received instructions, allow sufficient practice on each part of the task. The trainee must satisfactorily perform all parts of the task *without assistance*.
3. Use the appropriate checklist when evaluating the task to ensure all steps of the task are accomplished.
4. Document competency upon satisfactory completion of the evaluation. Initial evaluation should be documented in the Specialty Training Standard (STS). All recurring evaluation should be documented using AF Form 1098, *Special Task Certification and Recurring Training*, or using an approved substitute record.

**PERFORM CLINICAL PROCEDURES****PERFORMANCE CHECKLIST**

<b>CATHETERIZATION OF THE URINARY BLADDER – FEMALE</b>	<b>SAT</b>	<b>UNSAT</b>
<b>Preparatory Phase</b>		
1. Wash hands. Explain the procedure to patient. Help the patient to relax as much as possible.		
2. Position the patient in the supine position with knees bent, hips flexed, and feet resting on the bed in a frog's-legs position. Drape the patient.		
3. Ensure lighting is adequate for direct visualization of the genital area.		
4. Using aseptic technique establish sterile field and open appropriate catheter package on sterile field.		
<b>Performance Phase</b>		
1. Wash hands. Put on sterile gloves.		
2. Demonstrate proper cleansing techniques:		
a. Separate labia minora so the urethral meatus is visualized; one hand is to maintain separation of the labia until catheterization is finished.		
b. Clean around the urethral meatus with a povidone-iodine solution, unless patient is allergic to iodine, in which case benzalkonium chloride, chlorhexidine, or soap and water may be used.		
3. Introduce well lubricated catheter 2-3 inches (5-7.5 cm) into urethral meatus using strict aseptic technique. Avoid contaminating the surface of catheter.		
4. Allow some bladder urine to flow through catheter before collecting a specimen.		
5. After urine ceases to flow:		
a. Straight catheterization: Pinch off catheter (to prevent air from entering the bladder) and gently remove the catheter.		
b. Retention catheter: Inflate the balloon per manufacturer recommendations; secure catheter and tubing to patient.		
<b>Follow-Up Phase</b>		
1. Dry area; make patient comfortable		
2. Send specimen to laboratory; as indicated		
3. Discard supplies		
<b>FINAL RESULTS/NOTES:</b>		

**FEEDBACK:** Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc.

**PERFORM CLINICAL PROCEDURES*****CATHETERIZATION OF THE URINARY BLADDER - MALE***

<b>SUBJECT AREA:</b>	Perform Clinical Procedures
<b>TASK(s):</b>	Catheterization of the Urinary Bladder in the Male Patient
<b>CFETP/STS REFERENCE(s):</b>	19.5.1 Catheterizations
<b>TRAINING REFERENCE(s):</b>	<u>Lippincott Manual of Nursing Practice</u> , 10 <sup>th</sup> Edition
<b>EQUIPMENT REQUIRED:</b>	Sterile gloves Disposable sterile catheter kit with single-use packet of lubricant Antiseptic solution Sterile Drape Sterile container for culture
<b>OBJECTIVE:</b>	In a clinical setting, perform a catheterization of the urinary bladder in a male patient.
<b>REMARKS/NOTES:</b>	The principal danger of catheterization is urinary tract infection, which is associated with increased morbidity and longer, more costly hospitalization. Catheterization requires the same aseptic precautions as a surgical procedure. Ensure trainee follows strict aseptic technique. Use the smallest catheter capable of providing adequate drainage.
<b>EVALUATION INSTRUCTIONS:</b>	
	1. This QTP should be evaluated during actual performance of the tasks.
	2. After the trainee has received instructions, allow sufficient practice on each part of the task. The trainee must satisfactorily perform all parts of the task <i>without assistance</i> .
	3. Use the appropriate checklist when evaluating the task to ensure all steps of the task are accomplished.
	4. Document competency upon satisfactory completion of the evaluation. Initial evaluation should be documented in the Specialty Training Standard (STS). All recurring evaluation should be documented using AF Form 1098, <i>Special Task Certification and Recurring Training</i> , or using an approved substitute record.

**PERFORM CLINICAL PROCEDURES****PERFORMANCE CHECKLIST**

<b>CATHETERIZATION OF THE URINARY BLADDER – MALE</b>	<b>SAT</b>	<b>UNSAT</b>
<b>Preparatory Phase</b>		
1. Wash hands. Explain the procedure to patient. Help the patient to relax as much as possible.		
2. Position the patient in the supine position with the legs extended. Drape the patient.		
3. Ensure lighting is adequate for direct visualization of the genital area.		
4. Using aseptic technique establish sterile field and open appropriate catheter package on sterile field.		
<b>Performance Phase</b>		
1. Wash hands. Put on sterile gloves.		
2. Lubricate the catheter well with lubricant or prescribed topical anesthetic.		
3. Wash of glans penis around urethral meatus with an iodophor solution. Clean the urethral meatus from tip to foreskin. Repeat as required.		
4. Grasp shaft of penis (with non-dominant hand) and elevate it. Apply gentle traction to penis while catheter is passed.		
5. Insert catheter into urethra; advance catheter 6-10 inches (15-25 cm) until urine flows. When urine begins to flow, advance the catheter another 1 inch (2.5 cm).		
<b>Follow-Up Phase</b>		
1. Dry area; make patient comfortable		
2. Send specimen to laboratory; as indicated		
3. Discard supplies		
<b>FINAL RESULTS/NOTES:</b>		

**FEEDBACK:** Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc.



**Perform Clinical Procedures*****INTRAMUSCULAR INJECTION***

<b>SUBJECT AREA:</b>	Perform Clinical Procedures
<b>TASK(s):</b>	Perform Intramuscular Injections
<b>CFETP/STS REFERENCE(s):</b>	19.5.6.2. Intramuscular Injections
<b>TRAINING REFERENCE(s):</b>	<u>Fundamentals of Nursing: Concepts, Process, and Practice</u> , 8 <sup>th</sup> Edition
<b>EQUIPMENT REQUIRED:</b>	Patient's MAR or computer printout Correct sterile medication (ordered by physician) Sterile syringe and needle Antiseptic swabs Dry sterile gauze Sterile Gloves
<b>OBJECTIVE:</b>	In a clinical setting, demonstrate proper technique for an intramuscular administration of injectable medication
<b>REMARKS/NOTES:</b>	1. Primary risk to patient is an adverse reaction, drug action, and side effects. Observe closely for symptoms. 2. A secondary risk of the procedure is needle stick injury to personnel. Follow all local policies for prevention or reduction of needle-stick injury

**EVALUATION INSTRUCTIONS:**

1. This QTP should be evaluated during actual performance of the tasks.
2. After the trainee has received instructions, allow sufficient practice on each part of the task. The trainee must satisfactorily perform all parts of the task without assistance.
3. Use the appropriate checklist when evaluating the task to ensure all steps of the task are accomplished.
4. Document competency upon satisfactory completion of the evaluation. Initial evaluation should be documented in the Specialty Training Standard (STS). All recurring evaluation should be documented using AF Form 1098, *Special Task Certification and Recurring Training*, or using an approved substitute record.

## PERFORM CLINICAL PROCEDURES

### PERFORMANCE CHECKLIST

<i>INTRAMUSCULAR INJECTION</i>	<b>SAT</b>	<b>UNSAT</b>
<b>PREPARATORY PHASE</b>		
1. Properly identify the patient and verify prescription and doctor's orders to determine medication type, dosage, route, and time to administer.		
2. Properly demonstrate preparation of injection IAW local policy for administering medications. At a minimum:		
a. Check the medication administration record (MAR).		
b. Check the label on medication carefully against the MAR to make sure that the correct medication is being prepared.		
c. Follow the three checks for administering the medication and dose. Read the label on the medication (1) when it is taken from the medication cart, (2) before withdrawing the medication, and (3) after withdrawing the medication.		
d. Confirm that the dose is correct.		
<b>PERFORMANCE PHASE</b>		
1. Wash hands and observe other appropriate infection control procedures.		
2. Prepare the medication from the ampule or vial for drug withdrawal.		
3. Prepare the patient.		
a. Introduce yourself and verify patients identity IAW local policy		
b. Place the patient in the proper position		
4. Select the injection location and clean the site.		
a. Put on clean gloves		
b. Clean the site with an antiseptic swab. Using a circular motion, start at the center and move outward.		
5. Prepare the syringe for injection. Remove the needle cover and discard without contaminating the needle.		
6. Inject the medication.		
a. Holding the syringe perpendicular to the skin, with the bevel of the needle up, insert needle quickly (at a 90-degree angle).		
b. Holding syringe steady with one hand, pull back on plunger with other. If no blood is aspirated, proceed to next step. If blood is aspirated, withdraw and prepare new injection.		
c. Holding syringe steady, inject medication steadily and slowly.		
5. Withdraw the needle smoothly and at the same angle of injection.		
<b>FOLLOW-UP PHASE</b>		
1. Discard contaminated needle and syringe in appropriate container.		
2. Observe the patient per local policy to check for possible reactions or problems.		
3. Document administration on medication record/encounter form. Include time of administration, drug name, dose, route, and the client's reactions.		
<b>FINAL RESULTS/NOTES:</b>		

**FEEDBACK:** Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc.

**Perform Clinical Procedures*****INTRADERMAL / SUB-Q INJECTION***

<b>SUBJECT AREA:</b>	Perform Clinical Procedures
<b>TASK(s):</b>	Perform Intradermal / Sub-Q Injections
<b>CFETP/STS REFERENCE(s):</b>	19.5.6.3. Intradermal / Sub-Q Injections
<b>TRAINING REFERENCE(s):</b>	<u>Fundamentals of Nursing: Concepts, Process, and Practice</u> , 8 <sup>th</sup> Edition
<b>EQUIPMENT REQUIRED:</b>	Patient's MAR or computer printout Ampule or vial of correct sterile medication (ordered by physician) Sterile syringe and needle Antiseptic swabs Dry sterile gauze Clean gloves Bandage
<b>OBJECTIVE:</b>	In a clinical setting, demonstrate the proper technique for an intradermal or Sub-Q administration of injectable medication
<b>REMARKS/NOTES:</b>	1. Primary risk to patient is an adverse reaction, drug action, and side effects. Observe closely for symptoms. 2. A secondary risk of the procedure is needle stick injury to personnel. Follow all local policies for prevention or reduction of needle-stick injury
<b>EVALUATION INSTRUCTIONS:</b>	1. This QTP should be evaluated during actual performance of the tasks.  2. After the trainee has received instructions, allow sufficient practice on each part of the task. The trainee must satisfactorily perform all parts of the task without assistance.  3. Use the appropriate checklist when evaluating the task to ensure all steps of the task are accomplished.  4. Document competency upon satisfactory completion of the evaluation. Initial evaluation should be documented in the Specialty Training Standard (STS). All recurring evaluation should be documented using AF Form 1098, <i>Special Task Certification and Recurring Training</i> , or using an approved substitute record.

**PERFORM CLINICAL PROCEDURES****PERFORMANCE CHECKLIST**

<b><i>INTRADERMAL / SUB-Q INJECTION</i></b>	<b>SAT</b>	<b>UNSAT</b>
<b>PREPARATORY PHASE</b>		
1. Properly identify the patient and verify prescription and doctor's orders to determine medication type, dosage, route, and time to administer.		
2. Properly demonstrate preparation of injection IAW local policy for administering medications. At a minimum:		
a. Check the medication administration record (MAR).		
b. Check the label on medication carefully against the MAR to make sure that the correct medication is being prepared.		
c. Follow the three checks for administering the medication and dose. Read the label on the medication (1) when it is taken from the medication cart, (2) before withdrawing the medication, and (3) after withdrawing the medication.		
d. Confirm that the dose is correct.		
<b>PERFORMANCE PHASE</b>		
1. Wash hands and observe other appropriate infection control procedures.		
2. Prepare the medication from the ampule or vial for drug withdrawal.		
3. Prepare the patient.		
a. Introduce yourself and verify patients identity IAW local policy		
b. Place the patient in the proper position		
4. Select the injection location and clean the site.		
a. Put on clean gloves		
b. Clean the site with an antiseptic swab. Using a circular motion, start at the center and move outward.		
5. Prepare the syringe for injection. Remove the needle cover and discard without contaminating the needle.		
6. Inject the medication.		
a. Intradermal; holding the syringe steady insert needle at a 5-15 degree angle. Insert the tip of the needle far enough to place the bevel through the epidermis and into the dermis.		
b. Sub-Q; grasp the syringe in your dominant hand by holding it between your thumb and fingers. Holding the syringe steady insert needle at a 45 degree angle.		
7. Withdraw the needle smoothly and at the same angle of injection.		
8. If bleeding occurs, apply pressure to the site with dry sterile gauze until it stops.		
<b>FOLLOW-UP PHASE</b>		
1. Discard contaminated needle and syringe in appropriate container.		
2. Observe the patient per local policy to check for possible reactions or problems.		
3. Document administration on medication record/encounter form. Include time of administration, drug name, dose, route, and the client's reactions.		
<b>FINAL RESULTS/NOTES:</b>		

**FEEDBACK:** Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc.

**Perform Clinical Procedures*****PERFORM MACROURINALYSIS***

<b>SUBJECT AREA:</b>	Perform Clinical Procedures
<b>TASK(s):</b>	Perform Macrourinalysis
<b>CFETP/STS REFERENCE(s):</b>	19.5.9 Perform Macrourinalysis
<b>TRAINING REFERENCE(s):</b>	<u>Fundamentals of Nursing: Concepts, Process, and Practice</u> , 8 <sup>th</sup> Edition <u>Smith's General Urology</u> , 17 <sup>th</sup> Edition
<b>EQUIPMENT REQUIRED:</b>	<i>Multistix</i> - Reagent strips for urinalysis Color chart (usually on the <i>Multistix</i> bottle) Urine specimen Clean gloves
<b>OBJECTIVE:</b>	This module requires trainee to perform macroscopic examination and demonstrate a broad knowledge of Urologic laboratory examinations
<b>REMARKS/NOTES:</b>	Urine testing is one of the most useful assessments for patients with urological problems. Since approximately 20% of patients who visit a primary physician's office have a urological problem, it is important for the urology technician to have a broad knowledge of the laboratory methods available to test appropriate specimens and to know that the method of collection may vary depending on the test required

**EVALUATION INSTRUCTIONS:**

1. This QTP should be evaluated during actual performance of the tasks.
2. After the trainee has received instructions, allow sufficient practice on each part of the task. The trainee must satisfactorily perform all parts of the task without assistance.
3. Use the appropriate checklist when evaluating the task to ensure all steps of the task are accomplished.
4. Document competency upon satisfactory completion of the evaluation. Initial evaluation should be documented in the Specialty Training Standard (STS). All recurring evaluation should be documented using AF Form 1098, *Special Task Certification and Recurring Training*, or using an approved substitute record.

## PERFORM CLINICAL PROCEDURES

### PERFORMANCE CHECKLIST

<b><i>PERFORM MACROSCOPIC URINALYSIS</i></b>	<b>SAT</b>	<b>UNSAT</b>
<b>PREPARATORY PHASE</b>		
1. List and describe the types of urine specimen commonly requested:		
a. Clean voided urine specimens are usually adequate for routine examination. Most patients are able to collect this type of specimen independently. Routine urine examination is usually done on the first voided specimen in the morning. At least 10 mL of urine is generally sufficient for a routine urinalysis.		
b. Clean catch or midstream urine specimen. This decreases contamination from organisms in the urethra. Procedure fairly simple for males, difficult for females; involves cleaning urethral meatus and surrounding area, then, avoiding contamination, following procedure for standard mid-stream collection using a sterile specimen container. The patient passes the first 15-30 mL of the urine stream and collection is obtained after that into a sterile specimen cup.		
c. Catheterized specimen. It is obtained by catheterizing the bladder to obtain a urine specimen which is collected into a sterile container.		
2. Obtain urine specimen, <i>Multistix</i> reagent strips, and color chart.		
<b>PERFORMANCE PHASE</b>		
1. Wash hands and don clean gloves. Check reagent strip expiration date on bottle.		
Note: Follow manufacturer's instructions for reagent strip use. The following instructions/interpretations in this checklist are general guidelines only.		
2. Quickly dip reagent strip into the urine and immediately remove it. Ensure all chemically impregnated areas are immersed in the urine. Start timing.		
3. Touch the rim of the urine container with the strip as it is withdrawn from the container. (This removes excess urine.)		
4. Briefly blot the <i>edge</i> of the strip on absorbent paper towel or tissue.		
5. Compare each test pad to the corresponding row of color blocks on the bottle label.		
a. read each pad at the time shown on the label, starting with the shortest time.		
b. hold the strip close to the color blocks and match carefully		
c. read the pads in good light		
<b>FOLLOW-UP PHASE</b>		
1. List the chemical elements screened for and some possible indications of abnormal/positive results.		
a. Glucose: Most patients with a positive reading have diabetes mellitus, which may result in specific urinary tract manifestation such as renal papillary necrosis, recurrent urinary tract infection, or impotence.		
b. pH: Freshly voided is normally somewhat acidic. Alkaline urine may indicate a state of alkalosis, UTI, or a diet high in fruits and vegetables. A low pH is found in starvation, with diarrhea, or with a diet high in protein foods or cranberries. Patients with calcium stones, nephrocalcinosis, or both, may have renal tubular acidosis; patients with uric acid stones rarely have a urinary pH over 6.5		
c. Protein: Persistently elevated protein levels in the urine (>150mg/24 hours) may indicate significant disease.		
d. Hemoglobin: The dip-strip test for hemoglobin is not specific for red cells, and should be used only to screen for hematuria.		
e. Blood: Blood may be present in the urine of patients who have UTI, kidney		

<b><i>PERFORM MACROSCOPIC URINALYSIS</i></b>	<b>SAT</b>	<b>UNSAT</b>
disease, or bleeding from the urinary tract.		
f. Specific Gravity: Concentrated urine has a higher specific gravity; diluted urine has a lower specific gravity.		
g. Leukocytes: An increase in leukocytes in the urine are an indication of pyuria and is found in nearly all diseases of the kidney and urinary tract.		

*Continued*

**FEEDBACK:** Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc.