Standards and Protocols Manual
For Insurance Examination Services

This document is prepared for the exclusive use of those individuals engaged in completion of medical examination and specimen collection services on behalf of customers of ExamOne World Wide, Inc. All information contained in this document is proprietary and confidential, is the property of ExamOne World Wide, Inc., and may not be copied or used, in whole or in part, without the express written permission of ExamOne World Wide, Inc.
# Table of Contents

## Standards

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Preparing and Scheduling an Exam</td>
<td>2</td>
</tr>
<tr>
<td>Contacting Applicants</td>
<td>2</td>
</tr>
<tr>
<td>Accepting “Pre-Set” Appointments</td>
<td>5</td>
</tr>
<tr>
<td>Canceling Appointments</td>
<td>5</td>
</tr>
<tr>
<td>Personal Safety</td>
<td>5</td>
</tr>
<tr>
<td>Conducting Examinations</td>
<td>5</td>
</tr>
<tr>
<td>Providing Exam Results</td>
<td>6</td>
</tr>
<tr>
<td>Communicating Exam Information to Applicants</td>
<td>7</td>
</tr>
<tr>
<td>Time Estimates for Service Completion</td>
<td>7</td>
</tr>
<tr>
<td>ExamOne Quality Procedures</td>
<td>8</td>
</tr>
<tr>
<td>Information Privacy and Security Standards</td>
<td>8</td>
</tr>
<tr>
<td>Miscellaneous Notes</td>
<td>9</td>
</tr>
</tbody>
</table>

## Protocols

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collection of Specimens</td>
<td>11</td>
</tr>
<tr>
<td>Collection of Physical Measurements</td>
<td>23</td>
</tr>
<tr>
<td>Collection of Medical History Information</td>
<td>26</td>
</tr>
<tr>
<td>Collection of Other Testing Information</td>
<td>34</td>
</tr>
<tr>
<td>Conducting Older Age Assessments</td>
<td>37</td>
</tr>
<tr>
<td>Completing Electrocardiograms</td>
<td>42</td>
</tr>
<tr>
<td>Packet and Check Handling</td>
<td>43</td>
</tr>
</tbody>
</table>

## Forms

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory Standard Operating Procedures</td>
<td>A-1</td>
</tr>
<tr>
<td>Annual Background Check Certification</td>
<td>A-2</td>
</tr>
<tr>
<td>Confidentiality and Non-Disclosure Acknowledgment</td>
<td>A-3</td>
</tr>
<tr>
<td>Identification Badge Template</td>
<td>A-4</td>
</tr>
<tr>
<td>ECG Manual</td>
<td>B-1</td>
</tr>
</tbody>
</table>
As independent medical professionals, ExamOne expects examiners to perform all services with the appropriate level of due care and professional skill while maintaining adherence to industry accepted standard procedures, federal, state and local regulatory requirements, as well as specific standards required by ExamOne’s insurance company customers.

The services you are contracted to provide may include collection of specimens which are to be tested at a federally licensed medical testing laboratory. Federal regulations mandate that all such laboratories publish standard procedures related to the collection and handling of specimens and that anyone performing such collection or handling of specimens follows the established procedures. You agree to perform such collections in compliance with all applicable standards and procedures for each individual specimen collection as defined by the laboratory that will be testing the specimen. The standard procedures and practices for ExamOne, a Quest Diagnostics Company are specifically included by this reference.
ExamOne Standards and Protocols Manual

INTRODUCTION

ExamOne is committed to providing the highest quality services to the insurance industry. ExamOne makes referrals to paramedical and medical examiners for examinations related to underwriting of certain insurance products, primarily life insurance. Additionally, exams may be conducted involving applicants for Long Term Care, Health and Disability insurance. The ExamOne Standards & Protocols Manual is designed to familiarize independently contracted examiners with the level of service expected by ExamOne and its clients.

The examination process combines a variety of standard medical procedures with other processes that are unique to our industry and to individual clients. Since the information resulting from our examinations is used by a wide variety of life insurance companies in their underwriting decision making process, each client has a unique set of requirements related to the exam process.

As a skilled medical professional you should already be proficient in the medical procedures required to complete exams. The purpose of this manual is to convey the standards expected by the insurance companies as well as reflect the communication protocols generally expected by insurance companies, agents, brokers and their applicants.

The accuracy of our exam services is important to insurance companies to ensure fair evaluation and underwriting of their insurance applications. The level of professionalism and timeliness of completing these services is also of great importance to our customers.

Depending on the services requested by an insurance company, services may be provided by either a licensed and/or certified examiner or a physician. Before any services are provided by a contractor a copy of his/her current licenses (if required) must be reviewed and background checks will be conducted by ExamOne. Each proposed contractor will need to be approved by our compliance team prior to completing any exams on behalf of clients of ExamOne. Licenses will also be reviewed one month before their scheduled expiration. Services provided by physicians will require an active physicians’ license with no history of disciplinary action. Any disciplinary actions brought against a physician after beginning the contract are a basis for terminating the relationship.
STANDARDS FOR ARRANGING, CONDUCTING AND REPORTING EXAMS

A. PREPARING AND SCHEDULING AN EXAM

1. Prepare forms, supplies, and equipment.
2. Use the insurance company’s form for service level provided (MD, Paramed).
3. The correct lab kit should be used.
4. Examiners are expected to provide the following types of equipment and supplies.
   • Appropriate blood and/or urine collection kit (may be supplied by referring ExamOne Office)
   • Centrifuge
   • Cloth measuring tape for chest and abdominal measurements
   • EKG machine (if necessary)
   • Portable scale (measuring up to 350 pounds, preferably up to 400 pounds)
   • Retractable steel measuring tape for height (measuring up to 7 feet)
   • Sharps container (if blood sample is required)
   • Blood Pressure cuff of both regular and extra large with a Sphygmomanometer
   • Stethoscope
   • Non-Latex Tourniquet and gloves (Please do not use gloves for tourniquets)
   • Watch with a second hand
   • ExamOne Contractor ID Badge

B. CONTACTING AN APPLICANT TO SCHEDULE AN EXAM

This protocol should only be used if your local office is not being centrally scheduled (see paragraph 4 for information on centralized scheduling).

1. This summary has been compiled from Standards provided by insurance companies. Most orders will have both home and business numbers listed for the applicant, if necessary and available. The order may also contain a cell phone number or email address. When contacting an applicant, please use all contact information supplied. Unless expressly requested by an agent, applicant or order requestor, no calls should be initiated to an applicant’s home before 8 a.m. or after 9 p.m. If numbers provided are not correct, please try a phone book or call directory assistance. If you still need help, please contact your ExamOne office for assistance.

2. In accordance with privacy considerations, contact should be made with applicant only unless otherwise requested by the referring ExamOne office. Please identify purpose of call including name of referring agent (if applicable) and insurance company. Agent/order requestor should advise applicant that an examiner will be contacting him/her.
3. When making contact with an applicant to arrange for an exam, insurance companies expect that certain information will be made available to applicants, which includes:

- Length of exam process (typically 20-30 minutes)
- Need to have available physician contact information for physicians seen in last 5-10 years
- Need to have medical history information available
- Requirement for biometric collection, physical measurements, blood and urine sample collection
- A 4-6 hour fasting period is strongly recommended

The following illustration is an example of communicating such information:

“Hello Mr. Smith. My name is ____ and I am an independently contracted medical examiner for ExamOne. I am calling on behalf of Mr. Jones with XYZ Insurance Company. As part of your application for insurance, we need to schedule an exam for you. Is now a good time? “Great. This exam should take 20-30 minutes depending on your medical history. During the exam, I will be asking you for the names, addresses and phone numbers of the doctors you have seen in the last 5-10 years. I will also be taking your blood pressure, pulse, height and weight along with blood and/or urine samples. We do recommend a 4-6 hour fast. Are there particular days or times that would best for you?”

4. In order to receive the highest possible number of exam referrals, it is beneficial to provide the manager of the referring ExamOne office with your schedule of availability, so that the ExamOne office can assist in scheduling referrals for service through centralized scheduling, using ExamOne’s “Schedule Now” tool. In order to set up your schedule, please have ready a list of the zip codes you can service and general dates and times of your availability. If you are not participating in centralized scheduling, our recommended calling practices are below. The status protocol is designed in concert with ExamOne’s Schedule Now process, as well as service planning with some of our key customer partners. The referring ExamOne office will expect status updates daily.

<table>
<thead>
<tr>
<th>Business Day</th>
<th>Action Expected</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Order received in field office.</td>
</tr>
<tr>
<td>1</td>
<td>Order assigned and initial scheduling contact is attempted with applicant. All contact numbers are attempted. Status updated reflecting such actions.</td>
</tr>
<tr>
<td>2</td>
<td>Scheduling contact is attempted with applicant. All contact numbers are attempted and status updated reflecting such actions.</td>
</tr>
<tr>
<td>3</td>
<td>Scheduling contact is attempted with applicant. All contact numbers are attempted and status updated reflecting such actions.</td>
</tr>
<tr>
<td></td>
<td><strong>Scheduling contact is attempted with applicant. All contact numbers are attempted and status updated reflecting such actions.</strong></td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td></td>
</tr>
<tr>
<td>19 through cancellation</td>
<td><strong>Scheduling contact attempted with applicants every 72 hours.</strong></td>
</tr>
</tbody>
</table>

5. If you are unable to perform exam at the time applicant requests, please immediately advise ExamOne so other arrangement can be made for completing the exam. ExamOne can arrange for an alternate examiner if you are unavailable when the client has requested.

6. If you cannot make contact with applicant after attempting five (5) days in a row, notify the referring ExamOne office.

7. An agent should never be present during an insurance examination. If the examination is taking place at the agent’s office, please inform the agent that the exam must be done privately (in a separate room). If the agent arrives at the applicant’s home or business when the examination is taking place, they must be informed that the examination must be completed privately.

8. The original exam belongs to and is paid for by the insurance company that was named on the form the examiner originally completed. Please check with the referring ExamOne office before providing copies to any agent or third party.

9. It is recommended that appointments be reconfirmed before scheduled time. If the scheduled appointment is in ExamOne’s order management system 48 hours prior to the appointment, our system will call the applicant to confirm the appointment.
C. ACCEPTING “PRE-SET” APPOINTMENTS

A “pre-set” is an appointment that has been pre-set by either the agent or the order requestor. If you accept a pre-set appointment, please call the applicant immediately to confirm day, time, location, and to get any directions. ExamOne’s insurance company customers expect and establish as a requirement to keep the appointment even if you have not talked with the applicant prior to the appointment.

D. CANCELING APPOINTMENTS

If you need to cancel an appointment or change an appointment due to an emergency or scheduling mix-up, please call the referring ExamOne office first, who can either arrange for a substitute examiner or assist in contacting the applicant(s) to reschedule your appointment for services.

E. PERSONAL SAFETY

As a general rule, an examiner is never expected to complete an examination where he/she feels unsafe or uncomfortable. If an Examiner arrives for an examination and finds himself/herself in an unusual situation (applicant appears intoxicated, etc.), it is left to the discretion of the Examiner to choose to complete the exam if they feel safe or to leave the situation. If the examiner feels that they must leave the situation, he/she should notify the applicant that someone from ExamOne or their agent will be in contact with them, and he/she must notify the referring ExamOne office manager immediately.

F. CONDUCTING EXAMINATIONS

Both insurance companies as well as their insurance applicants expect examiners to observe certain standards. Generally these are very similar or the same that you would expect to observe when providing other professional services. These are:

1. Know all of the standards for such examinations.
2. Execute only those procedures you have been engaged to perform.
3. Treat each applicant with professionalism, dignity, respect and courtesy.
4. Project a professional image during any phone or personal contact with an applicant.
5. Applicants expect you to dress in a business-like, professional manner when performing services. This includes wearing a neat and clean lab jacket, medical uniform or business casual dress along with appropriate, closed toe shoes. Examples of clothing that would not meet these standards are tank tops, dresses, jeans, skirts, shorts, flip flops, etc.

6. Insurance companies expect that you will be prepared for each exam procedure and that you will have all the necessary equipment.

7. Insurance companies expect that you will arrive promptly for each appointment. If delay or cancellation is unavoidable, please notify the applicant and the referring ExamOne office as soon as possible.

8. All medical information is confidential and the content of an exam should not be discussed with anyone, including your spouse, children or friends. This information should be properly stored as well.

9. Please advise your ExamOne office of any problems encountered during an exam.

10. Collect and record all information accurately and completely as relayed by the client. If any life style or sensitive medical information is provided by client or you witness it, we must ensure the insurance company is made aware of this information.

11. All exams should meet CDC and/or other professional standards for safety and health.

12. Handle all specimens in accordance with CDC and/or other professional standards. See Appendix B for Protocols.

13. Insurance companies expect your equipment to be in good working order, calibrated regularly and hygienically clean at all times.

14. Insurance companies expect the applicant’s physical measurements to be measured each time and not verbally asked for.

15. All lab slips should be accurately and thoroughly completed.

16. All health history questions must be accurately completed.

17. Paramedical exams must be completed face to face, not over the phone.
G. PROVIDING EXAM RESULTS

All exams should be reviewed for quality before they are submitted. Generally an exam should be submitted no later than 24 hours after its completion. An image of the paramedical paperwork must be uploaded to ExamView as it needs to be retained for 26 months.

H. COMMUNICATING EXAM INFORMATION TO APPLICANTS

If the applicant asks for any medical advice or opinion, the examiner is not authorized by the insurance company to provide such advice. If the applicant questions the examiner about the significance of any physical finding obtained at the time of the exam, (for example blood pressure), the examiner should refer the applicant to his/her personal physician for interpretation. If asked anything about the underwriting of the application or the insurance policy itself, the examiner should refer the applicant to the insurance agent that sold the policy or to the underwriting department of the insurance company.

I. TIME ESTIMATES FOR SERVICE COMPLETION

Based upon experience, the time needed to complete various tests varies, but the following is a general estimate (not a standard) which may be a useful reference when scheduling appointments.

<table>
<thead>
<tr>
<th>EXAM</th>
<th>Approximate Length</th>
<th>Description of Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paramed</td>
<td>15-30 minutes</td>
<td>Includes medical history and vital signs</td>
</tr>
<tr>
<td>Physical Measurements</td>
<td>5-10 minutes</td>
<td>BP, pulse, height, and weight</td>
</tr>
<tr>
<td>Short Form</td>
<td>15-20 minutes</td>
<td>Includes fewer medical history questions and vitals than a paramed</td>
</tr>
<tr>
<td>Face to Face (LTC)</td>
<td>45-60 minutes</td>
<td>The Long Term Care (LTC) is a comprehensive overview of the physical and mental capabilities of the mature proposed insured.</td>
</tr>
</tbody>
</table>
### Stress Echocardiogram
- **Duration:** 2 hours
- **Description:** The Branch Manager usually coordinates this procedure with a local hospital or medical facility.

### Physician/Executive Exam
- **Duration:** 30-40 minutes
- **Description:** Includes medical history with Heart Chart and vitals.

### Blood Draw (Full or DBS)
- **Duration:** 15 minutes
- **Description:** Check instructions in kit for further information.

### EKG
- **Duration:** 15 minutes
- **Description:** Resting 12 lead Electrocardiogram.

### Treadmill
- **Duration:** 30-60 minutes
- **Description:** 12 lead EKG on an Exercise/stress treadmill.

### Chest X-Ray (1 or 2 View)
- **Duration:** 15 minutes & 20 minutes
- **Description:** Radiographic representation of chest.

### Heart Chart
- **Duration:** 15-20 minutes
- **Description:** Nurse or physician takes BP readings, heart history, and a doctor examines applicant.

### HOS
- **Duration:** 5 minutes
- **Description:** Applicant voids a urine specimen that is sent directly to the lab designated by the insurance company.

### Older Age Supplement
- **Duration:** 15-20 minutes
- **Description:** This includes DWR, MMSE and Mobility tests.

---

### J. ExamOne Quality Procedure

**ExamOne** has always been very proud of the quality of our services. **ExamOne’s** overall accuracy percentage is 99%. Examiners’ work is subject to daily quality control checks on exams completed. **ExamOne’s** Quality Assurance department and the referring **ExamOne** branch office conduct regular reviews of exam quality.

### K. Information Privacy and Security Standards

**ExamOne’s** insurance customers are responsible for the protection and security of protected information (PI) and protected health information (PHI) that are collected and utilized during the insurance underwriting process. As a contractor to these insurance companies, **ExamOne** and it’s subcontractors are expected to undertake appropriate
measures to assure that such information is protected. ExamOne expects each examiner to take the necessary steps and utilize best practices to assure that such protections are extended to their handling of such information. Such best practices would include:

1. Examiners are not to keep copies of any applicant’s record or completed forms once you have confirmed receipt of copies by the referring ExamOne office. Copies should be provided to the office within 24 hours of completing the exam. If an examiner needs to correct an error or has a question regarding a quality deduction on your pay check, the office will retain images of the completed services.

2. It is important that specimens are NEVER left unattended during collection, handling and shipping. The approved sites to ship from are your local ExamOne office, FedEx office, FedEx drop off box, courier, mail, etc. Specimens must NEVER be left on an examiners porch/front door for pickup. Also, if you are shipping them yourself, you must retain or provide the air bill number, location shipped from and date shipped.

3. Always store specimens, paperwork and any other items containing protected information in safe manner, protected from theft or unintended information disclosure. If transporting specimens or other documents containing PI or PHI in your vehicle, always secure them out of sight of the general public.

4. All discarded documents containing PI or PHI must be disposed of in a safe fashion, and must be destroyed using such equipment as cross-cut shredders. Documents containing PI or PHI are never to be discarded without such destruction. The referring ExamOne office may be able to assist you with safe, appropriate document destruction capabilities.

L. MISCELLANEOUS NOTES

• We have an examiner proficiency self testing tool available at www.examone.com as a resource if you wish to “test” your knowledge of the procedures and protocols mandated by our insurance company customers.

• If you receive an order on an applicant and during the exam the spouse states they also need an exam, NEVER complete an exam without first having an order.

• It is acceptable to perform an EKG on an applicant who has a pacemaker.

• If you have questions related to the appropriate completion of laboratory authorization slips, please contact the referring ExamOne office who can provide you with information and examples of correctly completed documentation.
M. INFORMATION TECHNOLOGY/COMPUTER STANDARDS

Computer systems have become an integral part of conducting business in today’s environment. The privacy and security of information stored in computer systems is of paramount importance to ExamOne as well as our insurance customers and applicants.

ExamOne provides independent contractors with a portal (TechView) through which order and status information is exchanged. Contractors are encouraged to use this portal to retrieve order information and update order status. However, access and use of this, or any ExamOne system, is subject to minimum system requirements and procedures. Please make sure you comply with the following requirements:

1. Each user must maintain their own login credentials (user name and password) and must use only those credentials for system access. Use of another users’ credentials is a violation of ExamOne’s security policies.

2. Information obtained through the access and use of TechView or any other ExamOne system is intended solely for the Contractor’s use in completion of services for customers of ExamOne, and is not to be disclosed to any other party or used for any other purpose.

3. No PI or PHI is to be stored on any computer system except those operated and controlled by ExamOne. This includes documents, spreadsheets, scanned images or information in any other form. ExamOne contractors are specifically prohibited from storing any electronic copies of exam information on their personal computer systems.

4. Any personal computer system accessing ExamOne’s systems must meet the following minimum requirements:
   - Personal computer system meeting the minimum system requirements to support Internet Explorer 6 or higher
   - Internet Explorer 6 or higher
   - Email access
   - Internet access
   - No Pop-Up window stopper
   - Current Anti-Virus software installed and must be kept updated: Symantec/Norton AntiVirus [http://www.symantec.com](http://www.symantec.com)
     Trend Micro’s Anti Virus [http://www.trendmicro.com](http://www.trendmicro.com)
     Grisoft’s AVG [http://www.grisoft.com](http://www.grisoft.com)
PROTOCOLS FOR THE COLLECTION OF SPECIMENS

I. PROTOCOL FOR BLOOD SPECIMEN COLLECTION

For the protection of the customers, we expect all independent contractors to utilize Universal Precautions in the collection and handling of any medical specimens and to be familiar and comply with all requirements as established by OSHA or any other governmental or regulatory agencies who may establish rules or procedures governing the provision of our services. This includes the wearing of gloves for each draw and prohibits any cutting/ripping off the finger of a glove to allow for easier palpation of the vein.

The following standards have been aggregated from requirements provided to ExamOne by our insurance company customers. While we recognize that as a trained and competent independent medical professional you are familiar with the procedures required to complete the tasks for which you were engaged, these standards should serve to define the expectations of our customers as to completion of a successful examination:

1. Identify applicant by requesting photo identification (driver’s license, military ID, state ID, passport, green card, etc).

2. Complete appropriate authorization slip for the lab to which the blood/urine kit will be sent.

3. Have client read and sign the authorization slip. DO NOT draw blood specimen if client declines to sign or alters the slip.

4. Label tubes with applicant’s name and barcode labels.

5. Explain procedure including small risk of hematoma, slight pain, and some light headedness or the need for a second draw. (Loss of vacuum or collapsed vein may necessitate another draw)

6. Non-Latex Gloves must be worn during exams.

7. Always ask if the client if he/she is right or left-handed or has had blood drawn recently. It is recommended that blood be drawn from non-dominate arm.

8. Position applicant seated comfortably in a chair with arm extended on armrest or desk or table to form a straight line from the shoulder to the wrist. Arm and elbow should be firmly supported and not bent at the elbow.

9. On table or desk assemble (position) all equipment: paper towel, tubes, sterile/unopened needle, alcohol swab, tourniquet, latex exam gloves, and band-aid.
10. Check both arms to select the best vein.

The following factors should be considered in site selection:

- Extensive Scarring: healed burn areas should be avoided.
- Hematoma: Specimens collected from an area of hematoma may yield erroneous test results. If another vein site is not available, the specimen should be collected distal to the hematoma.
- Mastectomy/Lymph Node removal history: Unless otherwise unable, do not perform venipuncture or blood pressure readings on the same side (left arm or right arm) as a mastectomy or lymph node removal.

*** It is not permissible to draw blood from feet, wrist or arteries. Examiners are limited to the antecubital fossa area or the top of the hand with a butterfly needle.***

11. Apply tourniquet. It is not permissible to use a BP cuff or gloves in place of a tourniquet.

12. Clean the venipuncture site with the alcohol swab in a circular motion from the center of the area to the outside. Allow the area to air dry to prevent hemolysis and a burning sensation to the client.

13. Unsheathe vacutainer end of needle and thread it. Be sure that the client witnesses the seal being broken.

14. Insert the stopper of the tube into the holder. Do not push too far as that might cause premature loss of vacuum if the needle punctures it.

15. Grasp applicant’s arm firmly using your thumb to anchor the vein by drawing the skin tight.

16. Position the applicant’s arm downward and hold the needle below the site to prevent back flow from the tube.

17. Instruct applicant to relax their fist.

18. Insert needle into the vein; bevel up. Puncture the stopper on the tube and grasp the edge of the needle holder to provide stability once the blood flow has begun.

19. Fill the tube until the vacuum is exhausted. Remove tube from holder and insert subsequent tubes. Be certain that all tubes are completely filled to ensure sufficient blood sample for laboratory analysis.

20. Remove tourniquet after filling all necessary tubes.
21. Remove the needle slowly, placing cotton or 2 by 2 square gauze over the site and apply gentle pressure over the puncture site for at least one minute. Place a band-aid over puncture site in case of any further bleeding.

22. Ensure barcode labels are on the tubes before replacing them into lab kit.

23. Remove all blood drawing equipment. Discard needle in biohazard waste Sharp’s container.

24. Gently invert the EDTA tube at least 10 times to mix preservative - DO NOT INVERT CORVAC (RED) TUBE.

25. Within one (1) hour, but after clotting, centrifuge red top tube for fifteen minutes and draw off serum assuring no cells are included in the pour off to the pre-labeled serum tube. (If blood is kept longer than one (1) hour before centrifugation, it must be kept at or below room temperature. Refrigerated is preferred.

26. Remember that a urine specimen must be sent with all blood profile kits. Affix tamper evident tape to urine container(s) supplied. If applicant is unable to void, arrange for a second appointment for the entire kit and make a note in the comments section of the lab slip.

27. Repackage the blood kit. Make sure all tubes are placed in the proper position for packing and ship to the designated lab via courier service.

28. Send one copy of authorization slip to lab with kit. Leave one copy with the applicant along with the information HIV Brochure, and return remaining copies to your ExamOne office. You MUST send a copy of the airbill back to the ExamOne office with your lab slip, exams, status, etc.

29. Notify the referring ExamOne branch office manager immediately if any problems of any kind occur.

II. ADDITIONAL VENIPUNCTURE CONSIDERATIONS

1. Prevention of Hematoma

   - Puncture only the uppermost wall of the vein.
   - Remove the tourniquet before removing the needle.
   - Use only major veins, not superficial veins.
   - Make sure that the needle fully penetrates the upper most wall of the vein. Partial penetration may allow blood to leak into the soft tissue surrounding the vein by way of the needle bevel.
• Apply a small amount of pressure to the area with the gauze pad when bandaging the arm.
• Avoid digging and probing once the needle has been inserted.

2. Prevention of Hemolysis

• Mix anticoagulated specimens (i.e. purple-topped tubes) thoroughly by inverting each tube gently five to ten times.
• Avoid drawing blood from an area of hematoma.
• Ascertained that the venipuncture site is dry after alcohol cleansing without touching it.

3. Prevention of Glycolysis

Glycolysis – When blood is drawn and not centrifuged in a timely manner, the red and white blood cells in the specimen will continue to utilize available glucose in the serum. Glucose levels in blood that is not properly centrifuged can drop 6-10 mg/hr. For example, a fasting applicant with a glucose level of 70 could easily drop to less than 40 if centrifugation is delayed by about 4-5 hours (particularly if the specimen is exposed to heat). Centrifugation sets the gel barrier between the packed cells and the serum, stopping glycolysis. When the serum is poured off into the transfer tube and sent to the lab – there should be no more degradation of glucose.

4. Lipemia

Lipemia is an abnormally high concentration of lipids in the blood, usually in the form of very low density lipoproteins (VLDLs) or chylomicrons. Characteristically, the blood plasma may appear white or milky in color due to the presence of fat. Triglycerides in the 400-800 mg/dl range may produce visible lipemia. Essentially, this isn’t an examiner error.

5. Unobtainable Blood Sample

**Never use the same needle more than once**

• Change the position of the needle. If the needle has penetrated too far into the vein, pull it back a bit. If it has not penetrated far enough, advance it farther into the vein. Rotate needle a half turn.
• Try another tube; the tube may not have any vacuum.
• Loosen the tourniquet. It may have been applied too tightly, thereby stopping the blood flow. Reapply the tourniquet loosely. This procedure can be accomplished easily when using the velcro-type tourniquet by releasing it and quickly pressing it together again.
• Once the needle has been inserted, there should be no hand or fist “pumping” as this predisposes to hematoma formation.
• Probing for the vein is NOT recommended, as it is painful to the client. In most cases, another puncture site is advised. The limit on punctures is two (one attempt per arm).
• Never attempt a venipuncture more than twice. After two unsuccessful attempts, contact the referring ExamOne office for directions.

III. PROTOCOL FOR COMPLETING SPECIMEN COLLECTION FOR CBC (Complete Blood Count) TESTING

1. The draw must be completed on a Monday or Tuesday and shipped the SAME Day. If this is not done, the results may be skewed or invalid. The specimen must be tested no more than 48 hours after completion of the draw.

2. The examiner must mark CBC on the labslip.

3. This is a purple top tube ONLY unless additional tests require a full blood draw. This will be noted on the order.

4. The specimens must be sent overnight to the lab for processing.

5. For any questions regarding the completion or instructions for a CBC, please contact the Quality Assurance team by emailing ExamOneQAManagement@examone.com.

IV. PROTOCOL FOR FINGERSTICK COLLECTION OF BLOOD SPECIMENS

1. Examiner should wash his/her hands in warm, soapy water. Put on non-latex gloves.

2. Have the applicant wash his/her hands in warm, soapy water. Rinse and dry completely.

3. Thoroughly clean site of skin puncture with alcohol swab and allow finger to air dry. Encourage client to shake hand to stimulate blood flowing to tip of finger.

4. Select ring or small finger and puncture finger firmly, near the tip but on the side (at the level of the base of the nail) with a sterile disposable lancet. It is important to obtain a free flow of blood without excessive squeezing as this may dilute the blood with tissue fluid. Gently massage the finger from the hand to the tip to facilitate blood flow. Keeping hand below heart level will also help (gravitational effect).
V. FAINTING PROTOCOL (AS A RESULT OF BLOOD DRAW)

Fainting, also called syncope, occurs when not enough oxygen-rich blood reaches the brain. Without adequate oxygen, brain metabolism slows causing one to lose consciousness briefly.

A person may have one or more of the following warning signs before fainting. Here’s what to look for (note that warning signs are not always present):

- Pale skin with sweating
- Upset stomach or nausea
- Sudden lightheadedness
- Partial or complete loss of consciousness
- Tingling or numbness in the extremities
- Graying out of vision
- Change of heart rate
- Shortness of breath

If an applicant has a reaction during the sample collection (usually 1-2 minutes for recovery), the following actions are suggested:

- Stop the collection procedure and, if possible, ask for assistance.
- If the applicant feels faint, lower his/her head to their knees making sure that you hold the applicant in the chair.
- As the applicant revives, a wet cloth or towel may be applied to the face.
- A glass of water may be given after the applicant revives.
- If the reaction is more severe, it may be necessary to have the applicant lie down for a short time. Raise the applicant’s legs above the level of their head to increase blood flow to the brain.
- Wait until lightheadedness or nausea has subsided before having the applicant stand.
- Have the applicant stand slowly which will allow more time for their blood pressure and heart rate to adjust to an upright position.
- In any event, keep the applicant in the area for at least 15 minutes before releasing him/her.
- Seek emergency treatment if you feel it is needed or if the client asks for it. Please err on the side of caution.

VI. PROTOCOL FOR COLLECTION OF URINE SPECIMENS

The laboratories supply plastic containers with a temperature strip for collecting the urine specimen. Be certain to record the urine temperature on the lab slip within the specified time frame. This is one of the key factors in proving that the sample is authentic. When at
an applicant’s house, inform them to leave the specimen on the back of the toilet and you will take care of recording the temperature and transferring the specimen into the vials. Never place a specimen directly on the applicant’s furniture. Always ask the applicant if it is ok to dispose of the collection cup in their trash. If they prefer you didn’t, take it with you and dispose of it later.

a. **CHAIN OF CUSTODY PROCEDURES FOR URINE**

It is essential that each Examiner be alert to assure that the specimen collected and submitted to the insurance company’s designated laboratory for analysis be genuine. In order to guarantee such, the following procedures are to be followed:

1. Complete the urine authorization/identification slip for correct processing at the laboratory.
2. You must escort, but not witness, applicant to the lavatory if the exam is being conducted in a public building and observe the temperature of the specimen received from applicant, which helps verify that it is authentic.
3. A “tamper proof” tape is provided in each kit and should be used on the designated vial. The tape is to be affixed to the top and sides of the urine container after collection of the specimen from the applicant.
4. Both applicant and the Examiner must initial and date the tape before it is affixed securely to the urine container.

NOTE: This procedure is designed to prevent adulteration or substitution of specimens and/or misplacement at the laboratory.

If the applicant cannot void, write “unable to void, specimen to follow” on a technicians work sheet and the laboratory slip and submit with exam form unless the insurance company has a different procedure. Always follow any procedures set in place by the insurance company. It is the Examiner’s responsibility to obtain a valid specimen from the applicant. The specimen container MUST NOT be left with the applicant to be filled and forwarded to the designated lab or picked up later.

b. **COLLECTING A 24 HOUR URINE**

1. Applicant should be instructed to empty their bladder in the morning after waking and then begin collecting their urine at the next voiding episode. Begin collection at next void ensuring date/time is recorded. If possible, have the applicant keep specimen refrigerated.

2. Urine can be collected in any clean container (like a paper or plastic disposable cup) and then poured into a large clean storage container, like a gallon milk jug that has been thoroughly washed and dried.

3. Collect all urine for 24 hours including the first morning voiding on the second day (which will be the overnight production of urine.) Urine does
not have to be refrigerated, but it should be kept at least in a cool place. A small cooler with some ice in it would be ideal, but is not an absolute requirement.

4. At the end of the collection, the specimen should be mixed by gentle agitation and measured using large graduated cylinder or beaker. Expect to collect between 1 and 2 liters of urine. Measure the urine in milliliters.

5. Use a standard insurance urine kit or a blood and urine kit (if you are going to be sending blood for analysis at the same time), fill the two urine vials with a sample of the 24 hour urine and be sure the urine preservative tablets are left in the vials.

6. On the laboratory request in the additional remarks section, write “24 hour urine” and the total measured volume of urine, for example “1200 mls total volume.” Also, record the date/time of last void.

For a creatinine clearance rate analysis follow the above steps, but write “24 hour creatinine clearance rate”, the total measured volume of urine and the height and weight of the applicant or patient on the lab request form.

A blood serum specimen is also required for a creatinine clearance rate and it must be collected at or near the same time as the urine specimen. For insurance testing, it should be included in the same kit as the urine specimen(s).

UNDER NO CIRCUMSTANCES SHOULD AN EXAMINER SEND MORE THAN 2 SMALL STANDARD URINE VIALS OF URINE (THOSE FOUND IN A STANDARD KIT) WITH BAR CODE LABELS IN PLACE. DO NOT SEND THE ENTIRE CONTAINER OF URINE TO THE LABORATORY.

VII. PROTOCOL FOR OBTAINING ORAL FLUID SPECIMENS

1. Wash hands

2. Open the saliva test package containing the Collection Pad and the Specimen Vial.

3. To open the Collection Pad package, orient the package so that the pad is “down” and the “stick” end is up.

4. With the thumb and index finger of each hand, simultaneously and symmetrically peel apart (down) the two sides of the packaging far enough to allow easy removal of the collection pad.
5. Without touching the contents, present the stick of the device to the proposed insured and instruct the applicant to pull it out of the packaging sleeve.

6. Instruct the applicant to place the collection Pad inside his/her mouth (pad oriented down) between the lower cheek and gum and gently rub the pad back and forth along the gum line until the pad is moist.

7. Begin timing for two minutes.

8. Instruct the applicant to leave the pad stationary against the lower gum for a minimum of two minutes to a maximum of five minutes.

9. Remove the specimen vial from the package and record proposed insured identification and date of collection on the Specimen Vial.

10. Open the vial in an upright position (with the cap up, pointed tip down) by gently rocking the cap back and forth to avoid spilling.

11. Give the open vial to the applicant, being careful not to spill the contents.

12. At the end of two minutes, instruct the proposed insured to remove the pad from his/her mouth and insert the pad into the Specimen Vial, and push the pad all the way to the bottom of the vial.

13. Instruct the applicant to break the nylon stick of the pad by snapping it against the side of the vial (the stick is scored to facilitate the breakage) and return the vial to you. You should direct this away from the person.

14. Replace the vial cap, ensuring it is tight. The cap will “snap” into place when secure.

15. Center the signed and dated bar coded tamper evident tape over the cap.

16. This specimen can be mailed or shipped via overnight delivery.

VIII. PROTOCOL FOR COLLECTION OF HAIR SPECIMENS

All supplies are part of the kit, except scissors.

Preparation Before Obtaining Sample

- Positively identify the donor to be tested by asking the donor for photo identification.
• Complete STEP 1 of the Custody and Control Form (CCF) with the donor and client information and mark the test to be performed and the reason for testing. Indicate the type of specimen collection in STEP 2.
• Record either the donor’s name, employee ID number or Social Security number; date; and time of sample collection on the envelope.
• In the presence of the donor; collector should clean the scissors with an alcohol wipe prior to obtain any hair sample.

Collection of Sample
• The donor’s hair is cut neat the rear of the crown and as close to the scalp as possible. A sample of approximately 120 strands is required. If all the hairs are placed side by side, this equates to ½ inch or 2 cm of hair. Based on this, it is something necessary to collect from several different places.
• If the test subject has little or no hair, or head hair is less than ½ inches long, a body hair collection may be conducted. The possibilities for a body hair collection, in order of preference, are chest, underarm, leg or facial. It is preferable that you do not combine hair from different sites on the body.

Transfer of Sample to Collection Device
• The hair is placed in the foil, root end extending out approximately ¼ inch from the slated end of the foil. The foil is folded lengthwise and the sample is placed inside the envelope with the root ends to the left.
• Take the security seal from the left side of the CCF and place it on the bottom of the envelope where indicated. Instruct the donor to initial and date the seal and envelope after the collector has placed the seal on the envelope. The collector then initials and dates the seal and the envelope.

Completion of the Custody and Control Form

• Instruct the donor to read the certification statement in STEP 5 and to sign it, then print his or her name and the date and provide the requested information after reading the certification statement. If the donor refuses to sign the certificate statement, the collector provides a remark in STEP 2 on COPY 1.
• Complete STEP 4 (i.e., signature, print name, date, time of collection and name of delivery service), immediately place the sealed hair specimen and COPY 1 of the CCF in the plastic bag and seal the bag.
• Place the sealed specimen bag into the overnight shipping package and send the specimen to the designated Quest Diagnostics laboratory. Distribute the other copies of the CRF as outlined in the standard operating procedure manual as required.

Examples of the procedure for hair specimen collection are illustrated below:
Helpful Hints:

<table>
<thead>
<tr>
<th>Situation</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Braids</td>
<td>Unbraid hair or cut from nape of neck. Indicate in large lettering on sample pouch and ID form “Nape Hair”</td>
</tr>
<tr>
<td>Weaving/Extension</td>
<td>Cut applicant's hair above the hair weave or extension. Do not obtain hair from the weave or extension.</td>
</tr>
<tr>
<td>Hair Replacement</td>
<td>Although hair replacements or transplants are acceptable specimens since the applicant's actual blood supply goes through the hair replacements or transplants, they are very expensive. Ask the proposed insured their feelings on the subject. If the proposed insured would prefer, body hair may be collected. Follow the procedure below.</td>
</tr>
<tr>
<td>Short Hair</td>
<td>Get double the width of hair sample in 2 or 3 spots or obtain body hair.</td>
</tr>
<tr>
<td>Issue of Balding Hair</td>
<td>Cut hair in 2-3 different spots. Align the ends of the hair in the same direction-end root out. Refer to instruction sheet.</td>
</tr>
<tr>
<td>Body Hair Collection</td>
<td>Body hair may be obtained from anywhere on the body (i.e. underarm, chest, leg, arm, etc). For case collection, body hair may be obtained with a disposable razor. Never reuse the razor! For Standard collection, the sample must contain 80-120 strands of hair equal to 1/2 inch wide when held flat across your finger. If the length of hair is not 1 ½ inches long, then collect more width for sufficient weight (i.e., if the hair 1 inch long, then collect ¾ inch in width). If the hair is sparse, it may be cut from several places on the body and combined in the foil so the sample will</td>
</tr>
</tbody>
</table>
contain adequate hair. NEVER MIX BODY HAIR WITH HEAD HAIR! Body hair does not have to be aligned in the foil. Notate in bold letters with a permanent marker on the side of the pouch and on the ID form the type of body hair collected.
**PROTOCOL FOR THE COLLECTION OF PHYSICAL MEASUREMENTS**

The physical data obtained from the applicant; specifically blood pressure, pulse rates, weight, height and chest/waist measurements (for males only) are confidential. These measurements should always be initialed by the applicant. Any alteration on the Part III/physical measurements form must also be initialed and dated by the applicant and paramedical Examiner.

Industry guidelines for completion of physical data are as follows:

I. **PROTOCOL FOR COLLECTION OF BIOMETRIC MEASUREMENTS**

   a. **STANDARD BLOOD PRESSURE TECHNIQUE**

      1. Inaccurate blood pressure readings may misrepresent the true state of a client’s health and could cause a policy to be rated or declined. Always take three (3) readings from alternating arms.

      2. In moderately obese persons, the use of a wrong size cuff (too small) can produce falsely elevated readings. In a moderately small person, the use of a wrong cuff (too big) can produce an inaccurate reading. If you feel an applicant’s arm circumference is too large, stop and measure the biceps to be sure you are using the correct cuff size. To report accurate blood pressure readings, it is necessary to record the size of the upper arm circumference on the exam form next to the blood pressure readings.

      3. To determine if you are using the proper size cuff, refer to the following chart:

         | ARM CIRCUMFERENCE | CUFF SIZE       |
         |-------------------|----------------|
         | 22cm to 26cm      | Adult Small    |
         | 27cm to 34cm      | Adult Regular  |
         | 35cm to 44cm      | Adult Large    |
         | 35cm to 52cm      | Adult Extra Large/Thigh |

      When it is necessary to use a different cuff other than a regular cuff, indicate such on the form as follows: “Arm measures __________ inches, __________ size cuff used”.

      4. The blood pressure should be the applicant’s resting blood pressure. Therefore, the applicant should be allowed to rest for several minutes in a sitting position before his blood pressure is taken. All blood pressure readings must be recorded accurately. It is not permissible to use automated BP devices.
b. BLOOD PRESSURE RE-CHECK

These are defined as supplemental blood pressure readings requested by the insurance company. Blood pressure re-checks are sometimes requested to be done on two different days and may include a short questionnaire about previous blood pressure history. The blood pressure must be checked three (3) times using both arms. This must be done in 5 minute intervals and while the applicant is at rest. This means no talking. Label the recorded reading indicating which arm they were taken from.

c. PULSE

The pulse is the impulse of the heart’s contraction transmitted to an artery.

The client’s pulse is usually found and felt in the radial artery of the wrist. Always find the pulse using your fingertips, never your thumb. With the tips of the first two or three fingers of your hand, make a firm but gentle pressure on the artery inside the wrist just below the thumb.

When you can feel the pulse plainly (moving your fingers until you do so), begin to count the beats. Be sure you always measure pulse rate using a watch with a second hand or digital counter and count the number of beats for the full 60 seconds.

Count pulse for one full minute and record. Note any intermittences or irregularities on paramedical form. If rate is over 100/minute or less than 60/minute, repeat pulse at the end of the examination. Paramedical Examiners are never to exercise applicants.

A pulse may be irregular in either its timing or intensity. An irregularity of the pulse such as skipping of an occasional beat may occur normally in some individuals especially during excitement, exercise, or after taking stimulants such as coffee or tea. An irregular pulse rate may also be a sign of heart disease or illness.

If there are ANY IRREGULAR/SKIPPED BEATS or if the pulse rate is highly irregular, this must be noted on the exam form. If you notice a skip or irregularity while taking the pulse, record the pulse rate and retake the pulse for a full minute and this time count the irregularities per minute. Record this number under irregularities. If there are no irregularities found, be very sure you write “none.” Do not leave the space blank.

Some irregularities of pulse rate occur at regular intervals, such as every fourth beat. If this occurs, the pulse is said to be “regularly irregular. Other irregularities occur sporadically (at random intervals) and the pulse is said to be “irregular.” This clarification can be noted on the exam form as well.
d. **PULSE RE-CHECK**

Repeat pulse. If over 100/minute or if under 60/minute take an additional reading.

II. **PROTOCOL FOR COLLECTION OF BODY MEASUREMENTS**

Record chest/waist measurements on all males (never on females). Waist measurements are made at the level of the umbilicus with the abdomen relaxed and the measuring tape at the same level front and back. Measure chest during maximum inspiration and maximum expiration with the tape at the nipple line. These should be recorded in inches.

a. **HEIGHT**

The height of each applicant is measured and recorded in feet and inches, e.g., 6'1”. To measure the applicant’s height, put the tab on the end of your steel tape under the applicant’s heel and extend the tape. Record applicant’s height with his/her shoes on. If height of heels is more is more than one inch, have applicant remove shoes before measuring and note on examination form that height was measured “without shoes”.

b. **WEIGHT**

Each applicant must be weighed. Have the applicant stand on the scale well away from any furniture or walls to avoid under-weighing. Be sure to place scale on a firm, flat surface. Avoid placing scale on any type of carpeted surface as this will alter the accuracy of the results. Weigh applicant with light indoor clothing (men with jackets off). Please record if the weight was with or without shoes. If an applicant exceeds the weight capacity of the scale, contact the office for further instructions.

c. **BODY MASS INDEX**

(BMI) is an alternative to our usual way of representing “build” (which, is simply to show a range of weights in pounds in relation to height in feet/inches). It is the dominant way in which “build” is represented in clinical medicine. This is usually calculated and reported to the customer by the laboratories. BMI is calculated by this formula: kg/m2. This translates out, in narrative form, as “weight in kilograms divided by height in meters squared.”
PROTOCOL FOR COLLECTION OF MEDICAL HISTORY INFORMATION

By definition a PARAMEDICAL EXAM is a basic examination including medical history and physical data of height, weight, blood pressure and pulse. A MEDICAL EXAM is a paramedical plus the heart chart section of the form. This must be completed by an approved physician (MD or DO).

a. NAME

PRINT name of applicant, as required, on insurance company form. Since the completed exam is considered a legal document by the requesting insurance company, care should be taken to confirm that the applicant’s legal name is obtained. Do not rely on the order for this information. Confirm the spelling of the applicant’s name with the applicant. If no special order of name is requested on the exam form, PRINT first name, middle initial and last name. If the applicant is also known by a professional, maiden or other name, give the applicant’s name as listed on the insurance application form and then indicate “a.k.a.” (also known as) followed by his/her professional or other name, for example, Sam N.M.I. Appanakis, A.K.A. Sam App.

Each insurance applicant usually receives a photocopy of his/her health declaration as a part of any issued policy. Insurance companies request that each examination form be completed with a black ball point pen. All writing must be fully legible. There is no purpose in writing information if the underwriter cannot read it. For the same reason, it is unacceptable to write in the margins. If the medical history question exceeds what can be captured in the space that is provided, please continue to record it on the ExamOne Continuation of Medical History Form. All completed examinations should be thoroughly checked for completeness and reasonability of data before being submitted to the customer.

The following instructions on the proper completion of the insurance company’s health declaration (Part II) form reflect the requirements and preferences of the majority of the insurance company underwriting departments for whom the paramedical Examiner will be completing paramedical exams. After proper introduction and prior to starting the exam, ask for photo ID, (drivers license, state ID card, passport, military Id etc.) and social security number. The social security number and driver’s license numbers are both recorded on the lab authorization slip.

b. DATE OF BIRTH

Always ask the applicant for his/her date of birth. Do not rely on the order for this information.

c. MEDICAL HISTORY
Read each question to the applicant exactly as written on the form in a slow and deliberate manner. Do not rush through the questions. Wait for the applicant’s response at the end of each question. Remember that the applicant’s medical history is extremely important to the home office underwriter in helping to arrive at an accurate assessment of the applicant’s insurability. As the applicant answers “yes” or “no” to each question, enter his/her response in the appropriate box. For each “yes” answer recorded, circle the number and/or letter of the question being answered “yes” and also underline or circle (where appropriate) the particular item in the question which elicited the “yes” response.

Enter details of each “yes” answer in the appropriate space. The details must include The 5 D’s: Date, Diagnosis, Duration, Drugs, and Doctor. 1. Date (month and year) of onset and/or last consultation for the illness or impairment. 2. Diagnosis: name of the disease, disability, injury, illness, and/or operation. Include any medication, surgery, therapy, or other treatment. Also include the result, it is important to indicate how long before fully recovered and what residual disability exists, if any. 3. Duration: provide length of the disease/impairment from beginning to end and of treatment, whether continuing or completed. 4. Drugs: a complete list of all medications (prescribed and over the counter) taken for past medical problems and medications currently taken. 5. Doctor’s name and address: PRINT the full name, address, and phone number of each physician and/or hospital involved in the evaluation or treatment of their applicant. A street address should be entered for each physician, together with the city, state, and zip code if possible. If the applicant cannot provide the necessary details for completion of any “yes” answer; it should be stated: for example, “doctor’s name not recalled”. Include any data available instead, such as the clinic name/location where the doctor was seen.

d. THE STANDARD FORMAT

If a “Yes” answer is given, follow standard forms questions listed below. If answer is unknown, so state. Additional follow-up questions are listed below for special disorders and diseases.

1. Diagnosis (name of ailment)
2. Date of onset
3. Duration (how long ill)
4. Time lost (how long away from work or normal duties
5. Tests performed and result
6. Treatment (exact type and length of treatment)
7. Date of recovery (when released from doctor)
8. Recurrence (did it happen again)
9. Complete name and address of doctor and/or hospital

If there is a history of any significant weight gain or loss (generally ten pounds or more) over the last year, indicate the cause (for example pregnancy/child birth,
dieting, overeating, lack of exercise, etc) and how long present weight has been maintained.

If the applicant gives a history of having previously been rated or rejected by an insurance company, it is important to obtain the name of the insurance company, the date, and the reason, if known. If the applicant gives a history of a check-up or physical examination, it should also be noted on the form what specific problem or symptom, if any, prompted the visit to the doctor. If the visit to the doctor was truly a “routine” physical examination, it must be so stated: “physical exam not prompted by any medical problem”. Also, inquire and record if any lab work and/or other tests were performed and the results.

Since the applicant’s health declaration is a legal document, ditto marks are not permitted by any insurance company. Abbreviations should be avoided except those listed in the medical procedure section of this manual. Under no circumstances should the proper name of a locality be abbreviated or written as initials (SD for San Diego or SC for Santa Clara).

When the Part II (medical history) of the insurance company’s form has been completed, have the applicant sign the acknowledgement that the history he/she has given is true and complete to the best of his/her knowledge. The applicant must also sign any authorization(s) for release of medical information with the Examiner signing as witness to the applicant’s signature when required as well as HIV consent forms (in states where applicable) and the ID authorization slip. Whenever the Examiner signs his/her name, he/she should indicate their affiliation with ExamOne and his/her title e.g., Med. Tech., M.A., L.P.N., etc. and cross out any reference to M.D. which might be pre-printed on the form.

The Part II of the insurance form (applicant’s medical history) is a legal document after being signed, dated and witnessed. (In fact, a copy of the Part II is or may become part of the insurance contract when issued). Therefore, there must be no erasures, white outs, deletions, or obliterations on this form. If the Examiner writes something incorrectly on the form, he/she should merely strike through the error once, write the correct answer, and the applicant and Examiner must initial the change. Remember, because the medical history is a legal document, the applicant and Examiner must initial any change on the history side of the form, even the changing of a “yes” to a “no” answer or vice versa.

If an applicant’s medical history is long and complex and requires more space than is available on the Part II of the form, the history can be continued on an ExamOne Continuation of Medical History Part II form. The continuation form must be separately signed by the applicant, dated and witnessed by the Examiner. Some insurance companies have their own Part II Continuation forms, and Examiners should use them for those companies.

If the Examiner has any information of a confidential or sensitive nature regarding the applicant (e.g., needle tracks on forearms), this information should be written
along with the applicant’s name and date of birth on a separate sheet of paper out of the applicant’s presence, signed and dated by the Examiner, and given to the office Supervisor/Manager who will send it directly to the insurance company. All insurance companies stipulate that under no circumstances is the writing agent or any other of their local insurance personnel to be made aware of any confidential or privileged medical information.

On occasion the applicant will indicate a past history of some medical problem, but will be unable or unwilling to provide details. In such an instance, list what information is available and indicate further details are unavailable. If the applicant refuses to answer one or more questions on the Part II, indicate such. Complete the Part II (medical history) portion of the examination form. Most situations in which the applicant is reluctant or unwilling to provide detailed medical information involves experiences which the applicant finds embarrassing or anxiety provoking. Such situations can usually be tactfully handled by the Examiner with reassurance to the applicant that the information sought will be handled in a confidential manner and will be used only by the insurance company’s home office personnel with a business need to know in order to determine the applicant’s insurability.

Remember, the home office underwriter relies on the paramedical Examiner to provide accurate information. The applicant’s historical and physical data are essential for the underwriter.

The next section contains common abbreviations and terminology

<table>
<thead>
<tr>
<th>Abbrev.</th>
<th>Meaning</th>
<th>Abbrev.</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. c.</td>
<td>Before meals</td>
<td>Path</td>
<td>Pathology</td>
</tr>
<tr>
<td>b.i.d.</td>
<td>Twice daily</td>
<td>p.c.</td>
<td>After meals</td>
</tr>
<tr>
<td>B.P.</td>
<td>Blood pressure</td>
<td>P.E.</td>
<td>Physical Exam</td>
</tr>
<tr>
<td>Caps</td>
<td>Capsules</td>
<td>Post-Op</td>
<td>Post Operative</td>
</tr>
<tr>
<td>C.B.C.</td>
<td>Complete Blood Count</td>
<td>Pre-Op</td>
<td>Pre Operative</td>
</tr>
<tr>
<td>C.V.A.</td>
<td>Cerebral Vascular Accident</td>
<td>P.R.N.</td>
<td>As needed</td>
</tr>
<tr>
<td>C.X.R.</td>
<td>Chest X-Ray</td>
<td>Procto</td>
<td>Proctoscopic</td>
</tr>
<tr>
<td>D&amp;C</td>
<td>Dilation &amp; Curettage</td>
<td>q.i.d.</td>
<td>Four times daily</td>
</tr>
<tr>
<td>Dx</td>
<td>Diagnosis</td>
<td>qns</td>
<td>Quantity not sufficient</td>
</tr>
<tr>
<td>ECG/EKG</td>
<td>Electrocardiogram</td>
<td>R or Rt</td>
<td>Right</td>
</tr>
<tr>
<td>E.E.G.</td>
<td>Electroencephalogram</td>
<td>Staph</td>
<td>Staphylococcus</td>
</tr>
<tr>
<td>Fx</td>
<td>Fracture</td>
<td>Strep</td>
<td>Streptococcus</td>
</tr>
<tr>
<td>G.I.</td>
<td>Gastrointestinal</td>
<td>Surg.</td>
<td>Surgery</td>
</tr>
<tr>
<td>Gm</td>
<td>Gram</td>
<td>Sx</td>
<td>Symptoms</td>
</tr>
<tr>
<td>G.T.T.</td>
<td>Glucose Tolerance Test</td>
<td>T&amp;A</td>
<td>Tonsillectomy &amp; Adenoidectomy</td>
</tr>
<tr>
<td>Gr</td>
<td>Grain</td>
<td>Tab.</td>
<td>Tablet</td>
</tr>
</tbody>
</table>
Insurance applicants often may not be the best historians of their medical histories. A thorough medical history collection involves recording provided information, and using that information to prompt additional questions to provide as complete a picture as possible of the applicants’ medical history. Follow up questions are very useful in gathering additional information that would be of interest to underwriters. Listed below are some examples of follow up questions that could be asked based on the report of a medical history item to generate a more thorough report:

- Abdominal Disorder: Possible surgery?
- Anemia: Require blood transfusion?
- Angina: How many attacks? Use nitroglycerin? Other meds?
- Arteries: Hardening of? Poor circulation? Quit smoking?
- Asthma: Frequency of Attacks?
- Bleeding Internal: Cause?
- Blood Pressure: How high? Taking meds?
- Blood Sugar: Diabetes? Diet Pills? Insulin?
- Blood vessels: Hardening of arteries? Varicose veins?
- Cancer: Deep X-ray, cobalt or surgery?
- Check up: Symptoms prompted? Tests and results?
- Chest pain, pressure: Due to heart? At rest? After exercise?
- Colitis: Ulcerative? Regional? Possible surgery?
- Convulsions: Epilepsy?
- Coronary artery disease: Angina or myocardial infarctions? How long off work?
- Diabetes: Date and age of onset? Type? Diet pills, insulin?
- Disability: Why? How long?
- Diverticulitis: Perforation of bowel?
- Duodenal Ulcer: Bleeding Episode?
Epilepsy       Frequency of Attacks?
Gall stones      Possible surgery?
Gastritis       Why? How often?
Glandular Disorder      Nature? Treatment?
Gout              How many attacks? Last attack?
Growth       Cancer? How treated?
Heart Attack     Light or severe? How long off work?
Heart murmur     Systolic, diastolic, functional, organic or congenital? Possible surgery?
Heart spasm      Narrow blood vessel? Angina?
Hemorrhoids      Possible surgery?
Hernia       Possible surgery?
Hoarseness      Present how long?
Hypertension-BP  How long?
Indigestion     Why? How often?
JAUNDICE     Liver or gallbladder? Stones? Hepatitis and type?
Kidney Stone     Still present or passed? Recurrent?
Lymph Glands      Nature? Treatment?
Medication     Name? How often? Still using?
Mental Illness    How many attacks? How long each? Treatment?
Muscular Disorder    Acquired? Congenital? Type?
Nervous Disorder     Any paralysis, weakness, deficits?
Palpitation       How many attacks?
Paralysis      Part of body? Degree or extent?
Pregnant          Due date? Complications?
Prostate     Enlarged? Infected? Possible surgery? PSA/free values known? Date of recent tests/biopsies?
Rectum       Possible surgery?
Respiratory Disorder    Asthma? Bronchitis? Emphysema?
Rheumatic fever   Heart Murmur?
Sciatica (DISC)    How long disabled?
Shortness of Breath     Due to heart? Lungs? After exercise? At rest?
Skull fracture     Unconscious? How long?
Slipped disc       How long disabled? Possible surgery?
Speech impairment  Born with? Acquired? How?
Spine             Disc problem? Curvature?
Stomach disorder  Bleeding? How many attacks?
Stroke            Major (severe) or minor?
Substance abuse   What substance? How often? Treatment? Last use when?
Suicide attempt   How many times?
Tumor             Malignant? Type? Treatment? Spread? Recurrence?
Ulcer             Bleeding episodes? Diagnosis?
Unconsciousness   Epilepsy? Injury?
Urine, sugar      Diabetes? Pills, diet, insulin?
Varicose veins    Possible surgery?
Venereal Disease  Type? Treatment? Recurring?

f. TERMINOLOGY AND PROTOCOLS FOR VARIOUS SERVICES

1. CHEST X-RAYS

Chest x-rays are sometimes referred to as a “Six Foot PA” of the chest or a one view x-ray. This means one x-ray which is a back to front view of the chest, done at a distance of six feet.

A “two view” or a “PA & LA” means two x-rays. One is the back to front view from a six-foot distance and the other is a side view from the same distance. Most insurance companies want the films, not an interpretation. The x-rays will be interpreted by the Medical Department of the insurance company requesting the x-ray.

2. INSPECTION

Confidential report covering applicant’s lifestyle, social and financial history obtained from the applicant and used by the underwriter in assessing the applicant’s eligibility for insurance.

3. PART I or Part A

Application for insurance usually completed by the agent.
4. **PART II or Part B**

Applicant’s medical history as outlined on insurance company’s form. Also known as a paramedical exam.

5. **PART III**

Applicant’s physical measurements.

6. **APS**

Attending physician statement. These are copies of the applicant’s medical records.

7. **Short Form**

A short form is used by a few companies. This form includes physical measurements and a limited number of medical questions and is much shorter than a full paramedical exam.
PROTOCOL FOR THE COLLECTION OF OTHER TEST INFORMATION

I. PROTOCOL FOR COLLECTION OF TIMED VITAL CAPACITY INFORMATION

Of all the tests and measures of respiratory status, the Timed Vital Capacity (TVC) test has great value to the underwriter. It can be used to evaluate severity of known respiratory impairment, or to identify those with undiagnosed or non-admitted respiratory illness. Underwriters may be able to compare current results with those in medical records to determine any signs of disease progression or treatment effectiveness. Studies have demonstrated that the TVC test is a reliable, independent predictor of longevity, and the information is not available from other sources or tests.

a. Definitions and terms:

- Spirometer: The machine used to perform the TVC test, which measures the volume of exhaled air.
- Spirograph: The graph of TVC results which some spirometer units produce, showing the volume of air exhaled (liters or cc’s) over a period of time.
- FEV1: Forced Expiratory Volume 1 equals the volume of air that is forcefully exhaled in one-second intervals.
- FVC: Forced Vital Capacity is the volume of air that can be forcibly and maximally exhaled in six-second intervals.
- FEV1/FVC: Ratio of FEV1 to FVC, expressed as a percentage.

Timed Vital Capacity is normally reported in both absolute and predicted values. Normal predicted values are based on age, height and gender.

Some units produce an actual graph where three tracings of the FEV1 and FVC are documented. Other units will provide the same information without the use of graph paper. All testing must be completed in three’s per FEV1 and FVC, regardless of the type of unit being used to administer the test.

b. Equipment/supplies needed:

- Calibrated spirometer (individual manufacture will provide calibration information)
- Graph paper (when applicable)
- ExamOne Physical Measurements form
- Disposable mouth pieces
- Nose clip (either reusable or disposable)
- Cleansing agents (suggested by manufacturer)
- Disposable gloves for the examiner
- Chair for applicant to use between testing sessions

Return to Table of Contents
NOTE: Examiners must be knowledgeable and have performed this procedure prior to administering it for ExamOne. Lack of understanding and knowledge on how to administer this procedure could result in false or inaccurate test results.

c. Preparing the applicant:

Explain the entire procedure to the applicant. Remind the applicant to stand up straight for maximum airflow and have them practice a few times. Ask the applicant to loosen any tight clothing and remove any loose dentures or chewing gum prior to the test. The examiner should be able to determine if the applicant is inhaling and exhaling to maximum capacity prior to actually administering the test.

d. Administering the TVC:

1. Have the applicant select a mouthpiece.
2. Wearing disposable gloves, place the mouthpiece in the unit.
3. Remind the applicant to stand straight throughout the testing.
4. Have the applicant take a deep, deep breath.
5. Apply the nose clip.
6. Have applicant put mouthpiece in mouth, and close lips around it tightly to seal.
7. Have applicant exhale as long and as hard as possible. Push them to keep exhaling and not take a breath until maximum effort is expended.
8. Remove nose-clip and mouthpiece.
9. Allow applicant to rest if needed before next test.

e. Coaching Example

“Take a deep breath and fill your lungs completely. Fill…fill…fill. (Apply nose clip) Put this tube in your mouth and close your lips firmly around it. Blast out the air as long and hard as you can Keep going…keep going…keep going….blow…blow…blow Now you may stop….. (Remove the mouthpiece and nose-clip). You may want to rest before we repeat this procedure. Let’s try again!”

f. Problem Solving:

1. APPLICANT BECOMES FAINT/DIZZY

   Have a chair nearby and ask the applicant if he/she would like to sit down for a few minutes between tests.
2. APPLICANT DOES NOT APPEAR TO BE EXPENDING FULL FORCE
Re-explain the procedure and emphasize the need to OBTAIN THE VERY BEST TEST RESULTS POSSIBLE. The examiner must be able to identify between an applicant who is unable to expend full force versus one who does not fully understand the procedure.

3. APPLICANT TENDS TO BEND FORWARD
Place your hand on the applicant’s shoulder gently, and coach to “stand up straight.” Explain the need to stand straight for maximum air- flow into and out of lungs.

  g. Documentation:

   Once the procedure is completed, have the applicant sign the graph sheet (if utilized with your unit) and the ExamOne TVC form. The examiner must complete the entire ExamOne TVC form and sign it as well.

  h. Calibration:

   If calibration is required (depending on the type of unit you are using), the formula for calibration is: (Measured divided by Predicted) times 100 = the actual test results obtained. All three tests for FEV1 and FVC must be calibrated.

   If calibration of test results is needed, the TVC unit should provide a calibration chart. Typically, the Knudsen Value Chart is used, unless otherwise specified by the manufacturer. Check the charts thoroughly before calibrating applicant test results.
PROTOCOLS FOR COMPLETING OLDER AGE ASSESSMENTS

a. INTRODUCTION

The Older Age Assessment is a comprehensive overview of the physical and mental capabilities of the mature proposed insured. It includes the Examiners’ professional assessment of the proposed insured’s short term cognitive recall and his/her ability to perform activities of daily living. Providing an accurate and complete “picture” of the proposed insured’s ability to carry out activities of daily living is extremely important in underwriting insurance coverage.

b. ABOUT OLDER AGE ASSESSMENTS

Older Age Assessments are ordered routinely on older applicants. The determining age varies by company. Assessments are also ordered “for cause” at any age when the underwriter has specific concerns based on other information at hand. These assessments may also be used to evaluate the risk of an insurance applicant, especially at older ages.

The purpose of the Older Age Assessment is to uncover functional impairments that may be unrecognized or undetected from the other sources of information available to the underwriter. The importance of the underwriter assessing the functional ability before approving the insurance policy is clear and is based on functional impairments, both physical and cognitive.

c. CONDUCTING THE OLDER AGE ASSESSMENT

It is important that the assessment interview be conducted in the applicant’s place of residence. This serves the two-fold purpose of allowing the Examiner to assess the environment in which the applicant resides and it gives the applicant the peace and security of familiar surroundings. It is important that the Examiner encourage the use of a room that is comfortable, quiet and free from extraneous noise and interruptions.

• If a radio or TV is on, for example, the Examiner should ask that it be turned off.

• If a third party, such as a spouse, relative or friend, is present, the Examiner should ask that he or she be excused with the explanation that it will be to the benefit of the applicant to have no distractions during the interview.

• If the other party does not leave, the Examiner must insist that there be no interference or coaching from the other party. All information must come from the applicant alone.
• It is important for the Examiner to face the applicant squarely during the interview and maintain eye contact.

• Do not assume that the applicant is hard of hearing simply because of their age.

d. **IDENTITY SECTION**

Many underwriters deem the Identity section as the most important segment of the assessment. This is a short-term memory test devised to evaluate the applicant’s awareness of current status and/or event. When administered correctly the Identity section has high predictive accuracy of dementia-type illnesses. It is extremely important to re-emphasize that it must be administered correctly; otherwise the test is useless and can mislead the underwriter.

You must ask the applicant each question twice and record their response. If no response is given, write “No response”.

e. **ACTIVITIES OF DAILY LIVING (ADL)**

The activities in this “self-care” category include the applicant’s ability to perform the basic activities of everyday living, such as bathing, dressing, toileting, etc. The Examiner must describe the circumstances of the activities that cannot be performed or those where the applicant requires the assistance of another person or device to perform the task.

f. **MENTAL ATTITUDE**

The mental assessment helps the underwriter identify any psychological conditions.

g. **COGNITIVE QUESTIONNAIRE**

The Cognitive Questionnaire deals mainly with the applicant’s memory and orientation. This section also helps with assessing the applicant in regards to mental capacity.

h. **FUNCTIONALITY/INTERVIEWER’S OBSERVATIONS**

The Examiner serves as the underwriter’s eyes and ears. Therefore, all observations must be fully and accurately documented regarding the applicant’s mental and physical functioning, communication ability, mobility, personal hygiene and home environment. The Examiner is responsible for reporting the observation of functional levels which are inconsistent with the applicant’s responses. For example, if the applicant maintains that he or she has full control of his or her bladder but smells strongly of urine, it must be documented. If the residence in which the applicant resides is littered with debris or the applicant’s personal appearance is unkempt, it must be fully described and documented.
i. PEAK FLOW

- Show the applicant the meter and instruct them on the proper way to use the Peak Flow Meter (PFM):
  1. Hold the meter around the round handle of the device.
  2. The applicant’s fingers should not block any openings or prevent the sliding indicator from moving.
  3. The applicant should remove any gum or food from their mouth.
  4. The applicant’s lips should form a tight seal around the mouthpiece.
  5. The mouthpiece should be inserted past his/her teeth.
  6. The applicant should exhale as fast as possible with a sharp short blast rather than slowly as this will yield the best results.
  7. The force of the air coming out of the applicant’s lungs will cause the marker to move along the numbered scale.

- Insert a mouthpiece into the PFM and reset the meter to zero.

- Demonstrate for the applicant the proper way to use the PFM.

- Put a clean mouthpiece on the PFM and ask the applicant to stand and hand them the PFM.

- Instruct them that they are going to exhale into the PFM three separate times stopping for a brief moment to take a breath before each time they exhale into the PFM.

- Have the applicant proceed with exhaling into the PFM.

- After the applicant exhales into the meter the first time, record the PF reading below under “1st Attempt” and reset the meter to zero. The applicant may now exhale into the meter a second time.

- After the applicant exhales into the meter the second time, record the PF reading below under “2nd Attempt” and reset the meter to zero. The applicant may now exhale into the meter the third and final time.

- After the applicant exhales into the meter the third time, record the PF reading below under “3rd Attempt” and circle the highest of the three scores.
• NOTE: If a male applicant scores less than 300, or a female applicant scores less than 250, ensure that the applicant is following steps 1-7 on the proper way to use the PFM and then have them exhale into the PFM three more times and record their scores.

• The highest score should also be recorded on the lab requisition under the “Examiner Comments” field using the following format “PF XXX”.

• After exactly 5 minutes has passed since the conclusion of part 1 of the DWR it’s time to complete part 2 of the DWR. If five minutes hasn’t passed, wait until it has to proceed.

Result: 1st Attempt: ___________  2nd Attempt: ___________
3rd Attempt: ___________

OLDER AGE ASSESSMENT QUICK REFERENCE

a. DEFINITIONS

The following terms are found in the Older Age assessments. It is extremely important that Examiners are familiar with and understand the meaning of these terms.

ADL – Activities of Daily Living

1. Independent - requires no assistance.
2. Human Assistance and/or Assistive Devices Needed
   - Occasionally or Always
   - cannot perform the task without some form of human assistance or assisting devices as needed or each time.

BEFORE THE ASSESSMENT

• Select the correct form as required by the customer.
• Establish a good rapport with the proposed insured.

WHO?

Who provides assistance to the proposed insured when he/she needs help to perform a task?

WHAT?
What (if any) assisting devices are needed when he/she performs a task?

WHEN?

When and how often is the assistance of another person or assisting device needed?

WHY?

Why does the proposed insured need an assisting device or another person to perform a task?
PROTOCOL FOR THE COMPLETION OF EKG MEASUREMENTS

Please refer to the ExamOne EKG Standards and Protocols document for detailed information regarding the completion of EKG measurements.

Listed below are some additional EKG measurement types which may be ordered by an insurance carrier. These measurements will be completed only in a clinical setting:

STRESS/TREADMILL EKG

TREADMILL (also called STRESS TEST or STRESS EKG)

An electrocardiogram that details the electrical function of the heart during exercise. It can help determine electrical abnormalities, such as the need for a pacemaker, or problems with inadequate circulation to the muscle of the heart. This cannot be completed on a mobile basis, and must be completed at a facility with a doctor present throughout the entire test. The use of an ergometer is only permitted with Insurance Company approval.

ECHOCARDIOGRAM

A non-invasive cardiac test that details the mechanical structures of the heart using sound wave technology. It can help detect defects of the valves and other structures.

STRESS ECHOCARDIOGRAM

An echocardiogram is done while the applicant is being exercised to see the effect that the stress of exercise has on the heart structures.
PROTOCOL FOR THE HANDLING OF PACKETS AND CHECKS

a. What Does the Word “Packet” Mean???

Basic definition of a packet:

A) An applicant’s application for life insurance which becomes part of their official policy or

B) a teleunderwritten part II.

b. General make up of a packet are:

• Application Part I – Applicant’s official policy requiring their signature.

• Medical History Part II – Applicant’s medical history performed via telephone interview which requires their signature as well as a witness signature by the examiner.

• Examiner’s Report Page – Physical Measurements page required to be filled out by the examiner.

• Potential other forms:
  a. HIV Form
  b. HIPAA
  c. Credit Card or EFT Authorizations
  d. Additional Questionnaires
  e. Replacement

c. Basic Packet Handling Standards

How do I know if an order has a packet to handle?

Review the work order for the following indicators:

• Field Company Name – this will indicate if you need to TAKE or Pick-Up a packet.

• Field Services – Where the normal paramed services are located, look for Document Handling, Take Packet, Applicant Signature Only. These are indicators that there is additional paperwork to be handled.

• There are also instructions in the destination area of the tech worksheet.
*** If you use TECHVIEW, there is also a small camera next to orders that have a PACKET attached. ***

What do I do if my work order states TAKE PACKET?

- If you are a TECHVIEW user, simply print out the attached packet from the order.

- If you are not a TECHVIEW user, the referring ExamOne office will be emailing/faxing/mailing the packet to you prior to your appointment date and time.

- Review the packet to identify any and all required signature lines along with reviewing the examiner report page.

- If you are scheduling or confirming the appointment with the applicant, please advise the applicant you will be supplying a packet of forms to the applicant for their review and signature.

- Before you leave the appointment, please review all signature areas to ensure all signatures were obtained.

- Status the referring ExamOne office or TECHVIEW with the appropriate packet status.

What do I do if my work order states PICK UP PACKET?

- If you are scheduling or confirming the appointment with the applicant, prepare the applicant by advising that you will be asking to pick up their application paperwork.

- When at the appointment, please ask the applicant if they would like you to send their application in with their specimens.

- Status the referring ExamOne office or TECHVIEW with the appropriate packet status.

Check Handling

In general, an Examiner would never ask for a check but in some situations might be presented with one. It is important to staple the check with the rest of the documents. TECHVIEW should also be statused that a check was picked up.
Packet Handling FAQs

Q: What if the applicant does not want to sign the TIAA form (temporary insurance)?

A: It is solely up to the applicant if they want to sign this or any other form with in their application packet. This is applicable to an EFT form (electronic funds transfer) or a Credit Card Authorization form.

Q: Can the client keep the packet and mail it in themselves?

A: Yes. If the client is taking longer than your time allows at their appointment, it is completely acceptable to explain to the applicant they can keep their packet to finish reviewing. Once they are ready to submit their application, they may contact their agent or the broker to submit their paperwork. If the application was mailed to the client, they may also submit their application using the supplied return envelope. The only exception to this rule is the account West Coast Life / Protective.

Q: What if the applicant asks questions such as “Once I sign these forms, does this mean I have insurance?” or “How long will it take before I get my coverage?”

A: ExamOne Examiners are not licensed insurance agents and are not to attempt to answer such questions. These questions need to be directed back to the agent or broker.

Q: Is it as acceptable for the Examiner to highlight the signature areas before the appointment?

A: Yes.

Q: Will Insurance companies switch from ExamOne TAKING out the applicant to mailing their paperwork to the applicant?

A: Some large BGAs (Brokers) already mail their application packets to their applicants, such as Matrix Direct or SelectQuote. Historically, ExamOne PICKS UP packets for these accounts at a rate of 70%, but when ExamOne owns TAKING the application packet out to the appointment, we are successful at a rate of 90+% of the time, which equates to a higher placement rate for the carrier.

Q: What is the Integrated Supply Chain?
A: This is ExamOne’s approach to supply an insurance company with every service they may need to underwrite a policy. A “One Stop Shop”.

Q: How do I send in a packet that is 30+ pages, since my stapler will not work?

A: Occasionally, some packets are very large in size and will not fit in the lab kit. ExamOne prefers these packets to be secured by a staple, but 30 pages are troublesome to secure in this fashion. If stapling the pages is not viable, place all the paperwork inside a separate envelope and sealing it. This way all of the paperwork stays together as well as any live checks that may have been submitted. Placing this envelope inside the same overnight pack as the associated specimen also ensures the paperwork and specimens arrive at the lab at the same time.

Q: What if the applicant does not want to submit a check?

A: That is a decision solely up to the applicant and is completely acceptable.

Q: Will the Examiners be charged for a missing witness signature on a packet which was sealed prior to the appointment?

A: No. If the application is submitted to you in a sealed envelope you are not responsible for any missing documents or signatures within. Simply send the sealed envelope to the lab along with the specimens.

Q: What if the applicant wants to make changes to the information on the packet we took to the appointment?

A: Since these are legal documents, any changes the applicant makes to the form should be initialed by the applicant.

Q: What if the applicant refuses to submit their social security number?

A: This is becoming a more frequent occurrence. If the applicant will not submit their social security number, please note the refusal on the labslip and paramed form.

Q: If there is information missing from the application, does the applicant have to fill it out?

A: 1. If this is a Pick Up packet account where the application is mailed to the applicant, there may be information they need to fill out on the application which was not captured in the initial interview with the agent. If the applicant wants to keep their application to finish filling it out, they may return it in the supplied envelope.
2. If this is a Take Packet account, there really should not be any missing information from their application. In most instances, the order will not be able to be submitted without all necessary underwriting information being present.

Q: What happens if I print my packet from TECHVIEW and there are black lines all over the document?

A: You need to contact the referring ExamOne office to see if they can quickly supply a clean version. If necessary, contact can be made with the home office as well to obtain a clean image of the packet.

Q: For a Pick up Packet account, what if the applicant only hands me 4-5 pages of their application to send in, am I responsible for those missing documents?

A: No. We have no way of knowing exactly how many forms were sent to the applicant, so you are fulfilling your obligation by accepting any documents the applicant supplies to you.

Q: What if the applicant does not agree with the amount of coverage the policy shows?

A: Politely refer the applicant back to their agent for a re-quote.

Q: For several accounts, why are we re-asking the medical questions as they already have been asked by the agent?

A: 1. This is a good underwriting check of that applicant to see if they are consistent with their answers.

2. Sometimes, the applicants may remember more information about their medical history than when they originally spoke to their agent.

Q: Are we seeing any trend on Voice Signature?

A: Yes. There were several companies which instituted Voice Signature for their interviews in 2008. Another trend in the industry which we will see in 2009 is E-Signature. Large brokers are seeing the value in sending their applications via secure email to their applicants for their review and subsequent E-Signature. These companies will not submit a paramedical order until they receive the E-Signed application.

Q: What if the packet states not to remove the staples, should we make copies?

A: That instruction really is for the applicant to ensure they do not lose any forms by removing the staple. Since we do not have an electronic version
of these applications, it is acceptable for us to remove the staple to make copies then re-staple be for submitting to the lab.

Q: What if the applicant refuses to sign 3 of the pages, should we leave the rest of the packet with the applicant?

A: Yes. It is important to try and keep the entire packet together. If the applicant is okay sending in the application without signing those pages, please note the case that the applicant refused to sign certain pages.

Q: If we leave a packet with the applicant, where should they mail it?

A: They need to coordinate with their agent or broker for the best way for them to submit their application.

Q: Is putting an extra barcode on the paperwork or live check helpful?

A: Yes. We need to be cognizant that these are legal documents and should not be placing a barcode on the front side of these pages. Placing one on the back side is acceptable. Placing a small barcode in the memo section of a live check is a very good thing to do. If this check gets separated from the paperwork for whatever reason, ExamOne can easily trace this check back to the specimens using this barcode.

Q: Are we responsible for faxing a copy of the packet back to the referring ExamOne office?

A: From a corporate perspective there are 2 scenarios. However, the referring ExamOne office may have different requirements. Below are the 2 corporate scenarios.

If this is a Pick Up packet, yes having a complete copy is very helpful to have if any documents get lost during transit or later.

If this is a Take Packet account, no just signature pages would be acceptable. Any of the other forms can be reprinted from the original image to re-create the packet.

Q: If there are Spanish forms in the packet and the applicant speaks English, should I take them?

A: Yes. The insurance broker or career has deemed these forms were necessary for us to take to the appointment.

Q: For the Take Packet accounts we handle, what placement ratio benefits do they experience?
A: Most companies do share their specific metrics with us, most experience a significant increase in their placement ratios. One very large customer, who recently switched their process to a Take Packet process has a placement ratio of 80.5%.

Q: If the packet has a Part II form included, do I need to take my own?

A: Yes. In the case of Insure.com, their part I forms are identical to the paramedical forms, but a traditional part II still is required.

Q: Is it okay to fax the packet I am bringing to the appointment to the applicant prior to our appointment?

A: Yes.

Q: Do I need to list the entire company name on the labslip?

A: Yes. When the paperwork arrives at the lab, having the full name present on the labslip helps to make sure the paperwork is routed correctly. Example would be: “Ohio National/Teleunderwriting/Term Express/Take Packet”.

Q: What if the company instructions state NOT to pick up a check and there is a TIAA form in the packet?

A: If the company instructions state not to accept a check, please follow these instructions. The applicant will more than likely be submitting their TIAA payment with a credit card or EFT.

Q: If there is a TIAA form in the packet does the applicant have to sign and supply a check?

A: No. The applicant can choose not to elect TIAA coverage.

Q: What if the applicant is taking a long time to review their application?

A: This happens quite frequently, especially with the Take Packet accounts. Politely advise the applicant they can contact their agent or broker to arrange a method to submit their application.

Q: What if the signature area states Personal Representative?

A: Some companies have unclear wording for signatures of the witnessing examiner, such as the above or Signature of Representative. We have
never heard a customer complain of an Examiner signing in too many locations.

Q: What if the applicant is very upset with the idea of submitting their application to the Examiner because of the personal information involved?

A: Life insurance underwriting activities are not covered by HIPAA, even though the applicant signs a HIPAA Authorization form. If the applicant questions this, please advise the HIPAA authorization pertains to any medical records the insurance company may need to request to underwrite their case, since medical facilities and doctors are governed by HIPAA this is why they obtain this signature. However, we do have very strict Privacy and Confidentiality policies and treat everyone’s person information with the utmost respect, but if they do not feel comfortable submitting their application with you, then they may contact their agent to arrange another method.

Q: What if the packet is not available before the appointment and this is a take packet account, do I go to the appointment?

A: Yes. It is ExamOne’s standard to hold that appointment. We can always arrange another way to get the packet signed at another time.
ADHERENCE TO LABORATORY STANDARD OPERATING PROCEDURES

As independent medical professionals, ExamOne expects examiners to perform all services with the appropriate level of due care and professional skill while maintaining adherence to industry accepted standard procedures.

The services you are contracted to provide may include collection of specimens which are to be tested at a federally licensed medical testing laboratory. Federal regulations mandate that all such laboratories publish standard procedures related to the collection and handling of specimens and that anyone performing such collection or handling of specimens follows the established procedures. You agree to perform such collections in compliance with all applicable standards and procedures for each individual specimen collection as defined by the laboratory that will be testing the specimen. The standard procedures and practices for ExamOne, a Quest Diagnostics Company are specifically included by this reference.

Acknowledgement

I have received a copy of the ExamOne Examiners’ Standards & Protocols Manual and I have read and completely understand all Protocols and Standards.

Examiner ___________________________ Date ___________________________

Print name ___________________________
ANNUAL BACKGROUND CHECK CERTIFICATION

I hereby certify that since my original criminal history background check was completed by the ExamOne office that I am contracted with, or since my last Annual Background Check Certification (whichever was the latest to occur):

1. [ ] There has been NO CHANGE in my criminal record
   
   or

2. [ ] There HAS BEEN A CHANGE in my criminal record

If box 2 was checked above please provide details as to the nature and status of the changes:

_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________

____________________________________
Signed

____________________________________
Printed Name

____________________________________
Date
CONFIDENTIALITY AND NON-DISCLOSURE ACKNOWLEDGMENT

Through my business relationship with _______________________ (“ExamOne Office”), I acknowledge that I may from time to time provide services on behalf of ExamOne World Wide, Inc., (“ExamOne”), for various insurance company clients of ExamOne (“Clients”) and individuals who have applied for insurance with Clients (“Applicants”).

I hereby acknowledge that the identity and any other personal, business or medical information of Applicants, and proprietary business information of the ExamOne Office, ExamOne and Clients (collectively referred to as “Protected Information”) is confidential in nature, and agree that I will not use or disclose Protected Information for any purpose other than to provide services to the ExamOne office or to ExamOne. I will not release, disclose, or provide copies of Protected Information without the written permission of the ExamOne Office or ExamOne.

I agree to maintain and hold in complete confidence any and all information received on behalf of the ExamOne Office, ExamOne, Clients or Applicants. I agree to comply with all privacy and confidentiality laws and regulations as are applicable to the Protected Information I maintain or obtain in the performance of the services I provide, including the Health Insurance Portability and Accountability Act of 1996, and the Gramm-Leach-Bliley Act. I also agree to abide by the Fair Credit Reporting Act and all other applicable federal or state laws and regulations. I agree to implement reasonable safeguards to prevent theft or any use or disclosure other than as permitted by this Acknowledgment, including misuse or unauthorized disclosure to third parties.

________________________________________
Signed

________________________________________
Printed Name

________________________________________
Date
IDENTIFICATION BADGE TEMPLATE

In today’s security conscious environment, it is critical that Examiners completing services in applicants’ homes and places of business present themselves in a professional manner.

The identification badge template provided below should be used to identify yourself as a duly authorized representative of ExamOne and thus of our insurance company clients.

It is recommended that this badge be laminated and worn conspicuously when completing services on behalf of ExamOne.

---

**IDENTIFICATION CARD**

This independent contractor is authorized to provide services on behalf of ExamOne, a Quest Diagnostics Company.

---

**DATE OF ISSUE**

**Representative Name:**

**Representative Number:**

**Office Address:**

---

**EXECUTIVE VICE PRESIDENT**

TRACY HARTMAN

Executive Vice President

---
This document is prepared for the exclusive use of those individuals engaged in completion of medical examination and specimen collection services on behalf of customers of ExamOne World Wide, Inc. All information contained in this document is proprietary and confidential, is the property of ExamOne World Wide, Inc., and may not be copied or used, in whole or in part, without the express written permission of ExamOne World Wide, Inc.
# Table of Contents

**THE ELECTROCARDIOGRAM** .............................................................. 3

**SECTION I: LEAD PLACEMENT** ....................................................... 3

  - Limb Leads ................................................................. 3
  - Modified Limb Lead Placement ........................................ 3
  - Augmented Leads .......................................................... 4
  - Chest Leads ................................................................. 4

**SECTION II: GENERAL ECG GUIDELINES** ......................................... 4

**SECTION III: PLACEMENT OF ELECTRODES** ..................................... 5

  - Preparation and Placement of Electrodes ......................... 5
  - Usage of Bulbs/Strap Electrodes .................................... 5
  - Self Adhesive Electrodes ................................................ 6
  - Special Circumstances ................................................... 6

**SECTION IV: SETTINGS AND REQUIRED INFORMATION** ....................... 7

  - Speed Setting .............................................................. 7
  - Standardization ............................................................ 7
  - Damping ................................................................. 7
  - Proper Mounting ........................................................... 7

**POTENTIAL ISSUES AND PREVENTION CHART** ................................... 8

**EXAMPLE OF ECG ERRORS** .......................................................... 9

**SECTION V: STRESS TEST AND ECHOCARDIOGRAM** ......................... 10

  - Stress Electrocardiogram ............................................... 10
  - Chemically Induced Stress Electrocardiogram .................. 10
  - Echocardiogram ............................................................. 10
  - Stress Echocardiogram .................................................. 10

**Example Letters** ................................................................. .11-12

**DEFINITION OF TERMS** ............................................................... .13-14
THE ELECTROCARDIOGRAM

The electrocardiogram records the electrical activity of the conduction system of the heart. Specifically, the ECG records the amount of voltage generated by the heart and the time required for that voltage to travel through the heart. A series of wave forms are recorded on a strip of paper. This strip is referred to as a tracing. The tracing is read and evaluated by a physician. This is a routine medical test used when evaluating the heart. An ECG requires 10 electrodes or sensors which are placed on the applicant’s skin. The 10 lead wires are attached to these sensors. (10 lead wires all connect to one cable known as the patient cable. The patient cable connects the lead wires to the ECG machine.) The 10 sensors pick up the electrical impulses from the heart providing the physician with 12 different views of the heart’s electrical activity. The 12 views of the heart give the physician a more accurate picture of the heart because it provides more than one view or angle. The views, or angles, are generated by recording various combinations of the ten sensors: four limb sensors and six chest sensors. In order to record the correct views of the heart, the sensors must be placed in specific locations.

SECTION I: LEAD PLACEMENT

LIMB LEADS

These sensors provide three standard views and three augmented views. Each lead normally provides a view between two points. For example, Lead I provides the view from the right arm to the left arm. These views are known as standard views and are as follows:
- Lead I: Right Arm to the Left Arm
- Lead II: Right Arm to the Left Leg
- Lead III: Left Arm to the Left Leg
(The right leg sensor is the "ground" and does not provide cardiac information. Instead, it serves as an electrical reference point.)

QRS COMPLEX

Diagram of electrocardiographic complexes, intervals, and segments.

MODIFIED LIMB LEAD PLACEMENT

Diagram of modified limb lead placement.
AUGMENTED LEADS

When a lead produces a view that uses three points, it is called an augmented lead. The augmented leads are designated by AVR, AVL and AVF. The “AV” stands for “augmented voltage.” The last letters correspond to Right; Left and Foot, and indicate the direction toward which the picture is aimed.

CHEST LEADS

Both the standard and augmented leads produce views of the heart that are two-dimensional from side to side and from top to bottom; while the chest leads record a third dimension from front to back. These leads are V1, V2, V3, V4; V5 and V6:

SECTION II : GENERAL ECG GUIDELINES

1. Before traveling to an appointment, make certain the machine is clean and in good working order.

2. Maintain adequate stock of all necessary supplies.
   - Gel, Lectro Pads and Disposable Electrodes
   - Approved paper for ECG Machine in use
   - Mounting Boards

3. Before each examination or tracing, make sure the instrument is recording properly and check the standardization. Contact the ExamOne Branch Office for repair of ECG unit if required. Do not proceed with ECG if machine is not functioning properly. Poorly completed ECGs may be redone without payment by insurance company.

4. In an office or home setting, select a room which is free from disturbance and annoying distractions. As much as possible, avoid electrical appliances in the same room and the proximity of concealed wiring conducting electricity to other areas of the building. Choosing the site carefully can aid in avoiding technical problems.

5. All ECGs are to be completed with the applicant fully reclined. An ECG must never be performed with the applicant in a sitting position or lying directly on the floor. Branch offices should have a exam table for use when performing ECGs. On a mobile basis, a vinyl covered mat may be used for the applicant to lay on if the floor is the only available choice.

IMPORTANT: Male examiners are not to perform ECG testing on female applicants. This insurance company policy is to be adhered to for both home and in-office surveys.

6. The applicant’s comfort is a major consideration in completing high quality ECGs so the following steps are important:
   a. Help him/her relax by presenting a friendly, calm, reassuring manner.
   b. Explain the procedure; he/she may be apprehensive about electrical wire and having...

### Standard or Bipolar Limb Leads

<table>
<thead>
<tr>
<th>Lead</th>
<th>Electrodes Connected</th>
<th>Marking Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead 1</td>
<td>LA &amp; RA</td>
<td>.</td>
</tr>
<tr>
<td>Lead 2</td>
<td>LL &amp; RA</td>
<td>..</td>
</tr>
<tr>
<td>Lead 3</td>
<td>LL &amp; LA</td>
<td>...</td>
</tr>
</tbody>
</table>

### Augmented Unipolar Limb Leads

<table>
<thead>
<tr>
<th>Lead</th>
<th>Electrodes Connected</th>
<th>Marking Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>aVR</td>
<td>RA &amp; (LA-LL)</td>
<td>_</td>
</tr>
<tr>
<td>aVL</td>
<td>LA &amp; (RA-LL)</td>
<td>___</td>
</tr>
<tr>
<td>aVF</td>
<td>LL (RA-LA)</td>
<td>___</td>
</tr>
</tbody>
</table>

### Chest OR Precordial Leads

<table>
<thead>
<tr>
<th>Lead</th>
<th>Electrodes Connected</th>
<th>Marking Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>V</td>
<td>c &amp; (LA-RA-LL)</td>
<td>see data below</td>
</tr>
</tbody>
</table>

**Recommended Positions for Multiple Chest Leads**

- **V1**: Fourth intercostal space at right margin of sternum
- **V2**: Fourth intercostal space at left margin of sternum
- **V3**: Midway between position 2 and 4
- **V4**: Fifth intercostal space at junction of left midclavicular line
- **V5**: At horizontal level of position 4 at left anterior axillary line
- **V6**: At horizontal level of position 4 at left midaxillary line
electrodes applied. Remember we are simply measuring the electrical current of the heart, we are not in any way putting electricity into the applicant.

c. Make certain the applicant is not chilled and, to maintain privacy, only the area for attachment of electrodes is uncovered. A small cover or towel should be used to provide privacy and/or prevent chilling.

d. Ask if the applicant has any questions before you begin the recording.

e. Avoid unnecessary conversation and movement, unless the applicant becomes uncomfortable.

7. Gently remove the sensors from the applicant's skin one at a time. Place the used sensors back on its original card and dispose of in your medical waste bag.

8. Provide the applicant with a tissue to wipe sensors gel from his/her skin.

9. Assist the applicant to his/her feet, and allow them some privacy to adjust their clothing. Caution the applicant to sit up gradually, as a sudden position change can result in temporary lightheadedness, particularly in older persons.

SECTION III: PLACEMENT OF ELECTRODES

PREPARATION AND PLACEMENT OF ELECTRODES

Before the sensors are applied, be sure they are clean and bright. Clean as necessary with a damp cloth and mild soap; do not use steel wool as it leaves fibers which can cause artifacts. **Note:** Dirty sensors are a major cause of baseline shift. Cable tips should be clean and bright.

When applying sensors to the skin, they should not be placed over bony prominence, scars or muscular areas of the legs and arms.

**POOR CONTACT OF THE SELF ADHESIVE ELECTRODE TO THE APPLICANT’S SKIN CAN CREATE DRIFTING, TREMOR-LIKE TO TOTALLY ERRATIC BASELINES.**

To prevent spurious test results, be sure to position chest electrodes as properly, see page 3.

When applying the chest electrodes to a male applicant who has a large amount of chest hair, use sufficient electrolyte to flatten the hair and “smooth” the hair in one direction.

**EXAMINERS ARE NOT PERMITTED TO SHAVE AN APPLICANT'S CHEST UNDER ANY CIRCUMSTANCES.**

When locating the intercostal spaces, count the spaces between the ribs. The first intercostal space is the space between the first and second ribs, not the space between the clavicle and the first rib. If you place your finger in the notch at the top of the breast bone and slide it down, you will feel a ridge where the manubium meets the sternum. Slide your finger to either side, and there is the 2nd intercostal space.

Spacing should appear equidistant from one electrode to the next with no crowding or gaps.

**USAGE OF BULBS/STRAPS ELECTRODES**

1. Prepare clean skin with Lectro pads (presaturated electrolyte pads) for the limb leads.

2. Arm and leg sensors should be placed on the fleshy part of the limb: Never place the sensors directly on the wrist or ankle (too boney).

3. Start with the applicant's legs, then arms, working from left to right. Apply the Lectro pads and straps firmly. Strap and electrode should not freely slide around on limbs. Hint: To determine proper tension, wrap the strap around; without exerting any tension, and then stretch to the next hole. With velcro straps; a common problem is tightness, make certain the skin does not appear pinched. Check by placing one fingertip under strap.

**Note:** Too much tension can produce somatic tremor and too little produces baseline shift, both technical faults in recording.

4. When sensors are properly applied following color coding or limb coding, attach the electrode tips
with the cable over the sensor. Tighten securely. When inserting the tips, have all tips pointed in one direction, toward the feet if possible. Be very careful. **Do not reverse the limb leads.** Attach appropriate lead wire to the correct limb. Right and left refer to the applicant’s right and left.

5. Attach the chest electrodes to the lead wires prior to applying to the chest.

6. Prepare the skin with electrolyte gel in appropriate positions on the chest. Be careful that the electrodes are not loose and move with breathing, or too tight and cause discomfort. Make certain the electrodes have been placed in the positions as noted on the chart.

7. Make sure all excess cable lays flat on the applicant; following the body contour with minimal crossing of lead wires. Do not allow the cable to hang down over the side creating tension on the electrodes.

8. Place the ECG Unit in a position towards the feet of the applicant rather than the upper torso.

(See Diagram for proper electrode positions, page 3)

**USAGE OF SELF ADHESIVE ELECTRODES**

*DISPOSABLE ELECTRODES*

1. Briskly rub the skin at the electrode sites with gauze pads moistened with Electrode liquid or electrolyte pads. This removes surface dirt, skin oils and dead skin cells.

2. Point the sensor tabs on the arms and chest downward and the sensor tabs on the legs upward. This will help prevent lead wires from bending or curling once leads have been attached to sensors.

3. Place the limb electrodes in the appropriate areas, see diagram for proper electrode placement, page 3.

4. **EXAMINERS ARE NOT PERMITTED TO SHAVE AN APPLICANT’S CHEST UNDER ANY CIRCUMSTANCES.**

5. Place the chest electrodes in the appropriate spaces, never directly over a bone.

6. Self Adhesive Electrodes can only be used one time. Once the electrodes have been removed, dispose of them. When the electrode tab is removed from the sheet initially, the integrity of the gel is decreased.

**DO NOT ATTEMPT TO RE-USE SELF ADHESIVE/DISPOSABLE ELECTRODES**

7. Allow the self adhesive electrodes to “set” for approximately 1 minute prior to connecting the lead wire clips to the electrode tabs.

8. Connect the lead wire clips to the accurate positioned electrode, closely noting lead wire identification.

9. For positive electrode contact, start from the center and run your finger across the electrode towards the edges to clear any possible air, making certain the complete electrode is making good contact.

10. Make certain all wires are supported. Do not allow the wires to create tension and or pull the electrodes away from the skin. Arrange the patient cable on the applicant's abdomen, avoiding any tension or tangling of the lead wires.

**SPECIAL CIRCUMSTANCES**

**Cast, Amputation, Prosthesis, Scar tissue**

Place the electrode above the affected area. The electrode for the other extremity must be placed in the same location, opposite the first. As an example, if the applicant has a cast extending from the knee to the ankle on the right leg, place, the electrode on the inside of the upper right leg, and the electrode for the left leg is placed on the inside of the upper left leg. If the electrodes are not applied in this way, that is, if one electrode is placed at the normal position and the other higher on the extremity, the electrical vector would be changed. This would produce abnormal results on the ECG. Always note the unusual electrode placement and the reason for it.
Pacemaker
If the applicant has a pacemaker, there is no contraindication to performing an ECG. The current in either the pacemaker or ECG machine will not affect each other. The tracing may appear bizarre, do not be concerned. Do not use the filter when performing errors on applicants with cardiac pacemakers. If the filter is on, you will not be able to see the spikes that are normally generated by a cardiac pacemaker.

SECTION IV: ECG SETTINGS AND REQUIRED INFORMATION

CORRECT MACHINE SPEED
Always run the machine at 25mm per second, which is the internationally accepted “normal” recording speed.

CORRECT STANDARDIZATION
Examiners are required to standardize all electrocardiograms with a standardization of 1.0mV (1 millivolt) or 10 mm/mmv setting on the machine: This is the universal standard of electrocardiographic measurement for recording limb and chest leads.

The 1.0mV STD mark is: 10mm high and should be approximately 2mm wide. Include one or two standardization on Lead I of all ECGs completed.

As you begin to run the ECG tracing, check the standardization: This must be done in every case and this portion of the tracing must be included with the electrocardiogram in order to properly read and evaluate the ECG. The diagnostic value of an ECG depends on an accurate reading: Standard techniques have been adapted to provide a recording that can be interpreted anywhere in the world, assuming the electrocardiograph used has been calibrated according to universal measurements. STD mark procedures vary. See the operations manual for the machine in use.

The STD mark must be included on the mounted tracing, preferably at the beginning or on the end of Lead I.

PROPER DAMPING
Damping - If the machine is “over” or “under” damped, it must be corrected: This is done by an adjustment on the machine and should be made when a stylus is replaced or if standardization is not “correct.” Refer to the electrocardiogram machine manual if the machine is in need of adjustment. The areas of adjustment may vary with the type of equipment used.

PROPER MOUNTING
All tracings are to be mounted on an approved ECG mounting board. No tracing should be mounted on plain paper, construction type paper, or sent in unmounted.

All tracings should be mounted in the proper order. Lead I, Lead II, Lead III, AVR, AVL, AVF, V1, V2, V3, V4, V5, V6

All tracings require the following information.
Printed Applicant’s name.
Applicant’s Signature.
Applicant’s Date of Birth.
Applicant’s Social Security Number.
Date the tracing was completed.
Insurance Company’s name.
## POTENTIAL ISSUES AND THEIR PREVENTION

<table>
<thead>
<tr>
<th>ARTIFACT</th>
<th>LOOKS LIKE</th>
<th>CAUSES</th>
<th>PREVENTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SOMATIC TREMOR</strong></td>
<td>Unnatural baseline deflections, ranging from irregular vibrations in amplitude and frequency peaks of irregular height and spacing to large shifting of the baseline.</td>
<td>Poor electrode attachment.</td>
<td>Proper cleaning of the skin.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Applicant is tense/chilled/nervous.</td>
<td>Proper cleaning of the applicant's skin.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Applicant body movement.</td>
<td>Proper positioning of the applicant for comfort.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lotion or skin creams on applicant's skin.</td>
<td>Proper cleaning of the electrodes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unclean electrode.</td>
<td>Proper positioning of the applicant for comfort.</td>
</tr>
<tr>
<td><strong>WANDERING BASELINE</strong></td>
<td>Baseline is not level, tends to wander throughout the tracing.</td>
<td>Tension in lead Wire.</td>
<td>Proper applicant positioning.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Poor electrode attachment.</td>
<td>Proper cleaning of the applicant's skin.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Applicant body movement.</td>
<td>Proper cleaning of the electrodes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Presence of other electrical currents.</td>
<td>Clean the electrodes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Corroded electrodes.</td>
<td>Position the applicant away from all Electrical outlets or devices.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Loose attachment of the lead wire.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Applicant is not free of all jewelry.</td>
<td>Make sure all lead connections are secure.</td>
</tr>
<tr>
<td><strong>A/C INTERFERENCE</strong></td>
<td>Electrical interference or 60-cycle appears as a series of small spiked lines.</td>
<td>Improper grounding of the ECG machine.</td>
<td>Have the applicant remove all jewelry.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Presence of other electrical currents.</td>
<td>Clean the electrodes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Corroded electrodes.</td>
<td>Position the applicant away from all Electrical outlets or devices.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Loose attachment of the lead wire.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Applicant is not free of all jewelry.</td>
<td>Make sure all lead connections are secure.</td>
</tr>
<tr>
<td><strong>LEAD REVERSAL</strong></td>
<td>Lead I on the tracing is Negative and AVR is positive.</td>
<td>Arm leads are reversed.</td>
<td>Leads are marked as RA and LA, meaning RA is on the right arm of the applicant. NOT your right arm.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Arm and leg leads are reversed.</td>
<td></td>
</tr>
<tr>
<td><strong>STANDARDIZATION</strong></td>
<td>Depending on the type of ECG machine, the STD mark is a rectangular marking that is 10 mm tall.</td>
<td>Machine is not set to record the STD.</td>
<td>Proper setting up of the ECG machine prior to using.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Machine is not set properly.</td>
<td></td>
</tr>
<tr>
<td><strong>SPEED</strong></td>
<td>Speed settings are generally recorded as 25mm/s.</td>
<td>Proper machine setting prior to using.</td>
<td></td>
</tr>
<tr>
<td><strong>FLAT LINE</strong></td>
<td>A distinct flat line</td>
<td>Lead not being attached properly.</td>
<td>Check each lead for proper attachment prior to running.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Broken lead wire.</td>
<td></td>
</tr>
<tr>
<td><strong>INDISTINCT TRACING</strong></td>
<td>Baseline is faint or to bold.</td>
<td>Bent stylus.</td>
<td>Proper machine settings prior to use.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stylus heat is too high.</td>
<td></td>
</tr>
</tbody>
</table>
Examples of ECG Errors

Below is an example of Reversed Leads. Note the positioning of Leads I, II and AVR. Lead I and II should always be in a mostly positive position. AVR should always be in a negative position.

Below is an example of a tracing that was ran at Half Standard.

Below is an example of a tracing run at Double Standard.

Below is an example of a Wandering Baseline.

Below is an example of a Somatic Tremor or A/C interference.

Below is an example of A/C interference.

Below is an example of a Somatic Tremor or A/C interference.
SECTION V: STRESS TEST AND ECHOCARDIOGRAM

STRESS ELECTROCARDIOGRAM

Stress Electrocardiograms; otherwise known as stress tests, stress ECG, treadmill ECG, and exercise treadmill are performed to determine causes of chest pain, to determine exercise capacity, and to identify rhythm disturbances. There may be additional reasons for this test to be performed.

All Stress ECGs should be performed under the Bruce Protocol. The Bruce Protocol is a standardized multistage treadmill test for assessing cardiovascular health. According to the original Bruce protocol, the patient walks on an uphill treadmill in a graded exercise test with electrodes on the chest to monitor the EKG. Every 3 minutes, the speed and incline of the treadmill are increased. There are 7 such stages and only very fit athletes can complete all 7 stages. The modified Bruce protocol is an alteration in the protocol so that the treadmill is initially horizontal rather than uphill, with the first few intervals increasing the treadmill slope only.

All stress ECGs should have a standard 12 lead resting ECG performed as well.

CHEMICALLY INDUCED STRESS ECG

A chemically induces stress ECG is a type of nuclear scanning test or myocardial perfusion imaging test that shows how well blood flows to the heart muscle. It's usually done along with an exercise stress test on a treadmill or bicycle. Thallium is the most commonly used drug for this test. Thallium is a radioisotope that is taken up in the heart muscle after intravenous injection when there are not significant blockages in the coronary arteries. A thallium stress test is useful in determining coronary artery blockage, prognosis of heart attack, and cause(s) of chest pain. There may be additional reasons for this test to be performed.

ECHOCARDIOGRAM

An echocardiogram is a test in which ultrasound is used to examine the heart. This can provide a single dimension image, known as M-mode echo that allows accurate measurement of the heart chambers. There can be a two dimensional echo, know as a 2-D Echo and is capable of displaying a cross-sectional image of the beating heart, including the chambers, valves, and the major blood vessels. An echocardiogram can identify size of the chambers, pumping strength, any muscular damage, valve abnormalities, and any structural abnormalities.

A standard resting ECG is run in tandem with the echocardiogram to reference any abnormalities.

STRESS ECHOCARDIOGRAM

A stress echocardiogram is combination of a stress ECG and an echocardiogram. An echocardiogram is performed previous to the stress test and once again when peak heart rate is attained. Stress echocardiograms can identify irregular heart rhythm; volume of blood and oxygen before, during, and after the test; overall cardiovascular conditioning, and how quickly the heart recovers after exercise.

ALL THE ABOVE TYPES OF ECGS WILL NEED TO BE COMPLETED AT A CLINIC OR HOSPITAL. CARE SHOULD BE TAKEN WHEN HELPING TO COORDINATE THE SCHEDULING OF THIS SERVICE WITH THE APPLICANT. SEE PAGES FOLLOWING PAGES FOR EXAMPLE LETTERS.
Applicant’s name:
Address:

Re: “Insurance Company’s name”

Dear “Applicant’s Name”,

This letter is to confirm your appointment that we have scheduled for your “insurance company name”.

Your Stress Test or Treadmill ECG is scheduled for “enter date and time”. This exam has been scheduled at “Name of location, address, telephone number”. Please arrive at your appointment at least 15 minutes before your scheduled time. Please refrain from caffeine, alcohol, and any nicotine products the day of the exam. You are required to fast at least 2 hours before your appointment. You may have water only. Please wear comfortable clothing such as sweat pants, shorts, tee shirt and some form of walking or tennis shoes. The test will be very similar to an at home treadmill exercise machine. The procedure will take approximately 20 minutes. If you need to cancel this appointment for any reason, please contact “ExamOne office contact name and phone number” or you may contact “Clinic name and phone number”.

As a reminder, you do not need to pay for the Stress test. The bill should be sent to ExamOne for payment and not to your medical insurance. ExamOne will only pay for the services requested by the insurance company. Any referrals or additional medical services provided to you by this physician will be your financial responsibility. If you have any questions regarding your appointments please feel free to contact me.

Please bring this letter to your appointment.

Sincerely,

“Office manager’s name”
Thank you for performing insurance medical examinations on behalf of ExamOne for our insurance customers. This letter is to confirm the appointment we have scheduled for the above named applicant on “Enter Date and Time” for a stress ECG procedure.

I have enclosed the specifications for completing stress EKG’s that meet our customer requirements. These specifications are in accordance with the standards provided by the insurance industry. Please review them prior to performing a stress ECG.

Also enclosed is a self-addressed envelope for mailing of the original reading of the stress ECG. The ExamOne office must receive the original in order to initiate payment of services. Please also maintain a copy for your records incase the mailed stress ECG is mishandled.

As a reminder, do not bill the applicant for the stress test procedure. The bill should be sent to ExamOne at the above address for payment. I have an account set up with the central billing unit of “Clinic or Hospital name and contact’. ExamOne will only pay for the services requested by the insurance company for which this applicant has applied. Any referrals or additional medical services provided by you, the physician, as a result of this requested insurance physical, will be the financial responsibility of the applicant.

If you have any questions regarding the above information or a problem with the schedule, do not hesitate to contact me. Once again, thank you for your assistance in completing this insurance requirement.

Sincerely,

“Office Manager’s Name”
DEFINITION OF TERMS

**AC interference** - Electrical interference which is apparent on ECG tracings as small regular peaks or spiked lines.

**Artifact** - Any markings on the electrocardiogram that are not caused by the current generated by the heart. Somatic tremors and AC interference are artifacts found on ECG tracings.

**Coding** - The markings of each lead tracing for identification. The code markings may be completed automatically by the machine, or by deflection of a machine marker, or written by the examiner while completing the ECG tracing.

**Damping adjuster** - An adjustment knob on the ECG machine that adjusts the shape of the STD mark. A normal STD mark shape is clearly Rectangular. Underdamping creates a STD mark that is slanted on the top of the rectangle. Overdamping creates a STD mark that is rounded off on the top of the rectangle.

**Drifting baseline** - (wandering baseline or baseline deviation) Drifting is seen as baseline movement from the center starting position, drifting up or down. Slight drifting is baseline movement no more than a few millimeters. Severe drifting is baseline movement over 5mm.

**ECG speed** - The speed that the graph paper moves through the machine. The internationally accepted speed is 25mm per second. There is a switch on all ECG machines for setting the speed.

**Electrocardiogram** - (ECG, EKG) A graphic display of rate and electrical impulses of the heart.

**Electrode** - A metal or disposable sensor that is placed on the patient in specified areas to pick up the electrical impulses of the heart.

**Fine sensitivity adjuster** - A knob on the ECG machine for adjusting the amplitude (size) of the STD mark. A normal 1.0 mv STD mark is to be 10mm high. If the STD mark is not 10mm, adjust the fine sensitivity.

**Lead** - (lead tracing) A record made by electrocardiography of the differences in the electrical current arising in the heart from different angles. Each lead tracing shows a different aspect of the heart’s electrical system. There are twelve leads or angles of measurement: Lead I, Lead II, Lead III, AVR, AVL, AVF, V1, V2, V3, V4, V5, and V6.

**mm** - (millimeter) The smallest square on the ECG graph paper is 1mm high and 1mm wide. The large square on the graph is 5mm high and 5mm wide.

**Somatic Tremor** - (muscle artifact) Seen as a fuzzy irregular baseline and/or unnatural baseline deflection, jagged peaks of irregular height and spacing to large shifting of the baseline. This is caused by the patient’s voluntary and involuntary muscle contractions.

**Standardization** - (STD) The process of determining whether a value or measure is set to a standard or a known value or measure. An ECG can be recorded in one of three standard settings. The settings are 0.5 mV, 1.0 mV, 2.0 mV, and selected using the sensitivity selector knob or key on ECG machine. Once the standardization setting has been chosen, the ECG will record at that setting. 1.0 mV (2 large boxes or 10mm) should be the setting.

**STD mark** - (standardization mark) A rectangular shaped symbol or marking produced when the standardization button is deflected by the examiner. On some ECG machines, this mark is automatically produced. A 1.0 mV settings is to produce a rectangular mark 10mm high and 2mm wide. A NORMAL 1.0mV STD mark is always to be visible on Lead I.
**STD button** - A button on the ECG machine that is used to place the STD mark on the graph. A quick deflection of the STD button will aid in achieving a STD mark 2mm wide. Some machines automatically standardize the ECG with a STD mark.

**Stylus** - A high temperature stylus (needle) tip which records the electrical waves of the heart on graph paper.