02-01-16 (Updated 01-29-17)

Patient Selection and Billing Suggestions – Soteria Cardiac Platform

The purpose of this document is to assist Soteria Clients in Patient Selection and Billing of the modules included in the Soteria Cardiac Platform. We have elected to update this document for two reasons: (i) Carriers have transitioned from ICD-9 to ICD-10 as of 10-01-15. This results in major changes both in the approach to patients (i.e. improved emphasis on preventive medicine issues) and the actual billing codes and (ii) Medicare provided an update for CPT 93922 and 93923 on 01-12-16. Please read this update carefully and let Soteria Medical, LLC know if we can help with Client Billing Questions.

1. Patient Selection

It may be helpful for Client Physicians and Staff to consider the following information. Commonly, there are two forms of Medical Prevention. These are described in Table 1.

Table 1

<table>
<thead>
<tr>
<th>Soterogram</th>
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</thead>
<tbody>
<tr>
<td>Primary Prevention</td>
</tr>
<tr>
<td>Identification of Cardiovascular Disease in Individuals without Known Risk Factors or Symptoms of Cardiovascular Disease.</td>
</tr>
<tr>
<td>Positive Information is Used to Change the Disease Trajectories in these Individuals.</td>
</tr>
</tbody>
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Please carefully note the definitions of Primary and Secondary Prevention given in Table 1, as this is the first step in identifying candidates for Platform Testing. This information is both generic and specific to the Soterogram.

While Table 1 is helpful in the candidate selection process, additional information may also be needed. For example, how prevalent is significant atherosclerosis? The American Heart Association and the American College of Cardiology have done a very good job in answering this question in simple terms.
The population of the United States is approximately 320 million people. Each year this population experiences approximately 2 million deaths from ALL causes. Of ALL deaths, 50.5% (> 1 million deaths) can be traced directly to ATHEROSCLEROSIS. Further, in a very significant number, the first symptom of atherosclerosis leads to acute death (300,000 first-symptom acute deaths per year by heart attack alone).

Another question in determining candidates for Platform Testing is, at what age does atherosclerosis begin? This answer can be described in many ways. Most experts agree that Emory University has made a significant contribution in addressing this question in a long-term population-based research study. This study (Pathobiological Determinants of Atherosclerosis in Youth - PDAY Study) began in 1985 and has been active now for over 30 years. The major results which are still expanding, are highlighted in Table 2, and further defined in the referenced PDAY Study document published in 2008, which SM provides to interested parties.

Table 2

<table>
<thead>
<tr>
<th>Age Range</th>
<th>% Prevalence</th>
</tr>
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<tbody>
<tr>
<td>15 - 19</td>
<td>15</td>
</tr>
<tr>
<td>30 - 34</td>
<td>35</td>
</tr>
</tbody>
</table>

The main message from this study is simple. Significant and life-threatening atherosclerosis begins for both males and females at least by age 30 years. If society and medical practice are to make a difference in reducing deaths secondary to atherosclerosis, the atherosclerotic trajectory of YOUNG individuals must be both identified and changed. This is further emphasized by the facts that atherosclerosis in its early stage, is a disease-of-the-wall and even relatively mild wall disease can be deadly in advance of symptoms.
Also, and importantly, the methods used by physicians today that rely on changes in electrical activity of the heart and/or hemodynamic activity of the heart (i.e. blood flow) are NOT able to detect deadly disease limited to mild changes in the arterial wall.

The Soterogram is able to detect very early and minor changes in the arterial wall by accurately measuring Arterial Compliance (Δvolume / Δpressure). Finally, while physicians at this time do not have a “silver bullet” for atherosclerosis, early and aggressive traditional therapy including risk factor control has been shown to reduce PROGRESSION of disease and associated EVENTS. Finally, since the Soterogram is noninvasive, painless, and relatively inexpensive, it can be repeated to determine SUCCESS of therapy.

The information provided above should be sufficient for any Client Physician and Client Staff to identify and select candidates for Soterogram testing. The proper billing of this procedure is another matter which will now be discussed.

2. Billing

The Soterogram is based on the following tenet. It is highly important to identify early, the specific presence and degree of atherosclerosis in patients. We have evolved to defining atherosclerosis in terms of: (i) Soterogram Score and said score’s relationship to a Predicted Soterogram Score, (ii) Arterial Elasticity, and (iii) Generalized Atherosclerotic Burden.

It would be very advantageous if we had the ability to address these important measures in the three main arterial beds of the human circulation: (a) Coronary Arterial Distribution, (b) Intracranial and Extracranial Arterial Distributions (i.e. Cerebral), and (c) Peripheral Arterial Distribution. Unfortunately, noninvasive and practical early-stage studies are limited to the Peripheral Arteries. However, the lower extremity arteries (Thigh and Calf Levels), provide an excellent window as regards generalized atherosclerosis.

To be very clear, the Soterogram makes peripheral arterial measurements to predict the presence and degree of generalized atherosclerosis. In fact, the CPT Code (i.e. Procedure Code) used for the Soterogram is a peripheral physiologic arterial code. To properly bill a Carrier (CMS or Private), three important components must be present:

I. The Indication(s) and Medical Necessity for performing the Soterogram must be documented in the Patient’s Medical Record by the Referring Client Physician.

II. The CPT Code, defining the mechanics of the procedure performed must be clearly identified on the Claim prepared by the Provider (i.e. Client) and submitted to the Carrier. As mentioned above, at this time, the Soterogram requires only one CPT Code; that code is CPT 93923.

III. To earn payment from a Carrier, every CPT Code must be accompanied by a Diagnostic Code (ICD-10 Code) and included in the submission (i.e. Claim) to the Carrier. To be very specific, for procedures performed from 10-01-15, ICD-10 coding must be used. The current Provider / Carrier Billing process has matured to the point that only certain and specific Diagnostic Codes (ICD-10) define Medical Necessity for a specific CPT Code. If this relationship is not consistent, the Claim will be DENIED.
With the definitions associated with the Soteria Testing, Indication(s), Medical Necessity, CPT Coding, and ICD-10 Coding requirements, the only thing missing to complete a successful Claim is the proper ICD-10 Code(s) to use for specific patients. To aid in this final step in the process, for each CPT Code the American Medical Association (AMA) publishes all associated and cleared ICD-10 Codes. In general, this linkage has been adopted by all Carriers. In addition to the AMA CPT and ICD-10 Publications, this linkage is available on-line through many sources (i.e. www.SuperCoder.com).

For CPT 93923 there are over 155 cleared ICD-10 Codes. This entire listing, has been reviewed by Soteria and its Billing Consultant. If you review the 01-12-16 Medicare Update you will see the 17 most used ICD-10 Codes with Code Descriptions for Soterogram billing. Client Physicians, Client Clinical Staff, and Billing Staff should be familiar with this listing.

To further focus the billing process, please see Table 3 given below. Here we have divided the cleared ICD-10 Codes into three categories, which define the vast majority of ICD-10 Codes used in Soterogram billing:

**Table 3**

<table>
<thead>
<tr>
<th>Clinical Correlation - Soterogram</th>
<th>ICD-10 Codes</th>
</tr>
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<tbody>
<tr>
<td>Patients with / or Expected Peripheral Arterial links to Generalized Atherosclerosis (3 codes)</td>
<td>I73.9, I70.201, and I70.202</td>
</tr>
</tbody>
</table>

*(JR recommends using I73.9 in most cases. The I70.201 and I70.202 are reserved to cases where disease is expected to be present in a specific lower limb)*

When billing for a specific CPT Code, Carriers expect the Provider and Billing Company to list the most logical and important ICD-10 Codes to support the procedure performed. In the case of the Soterogram, using 93923, the Carriers want the Physician to indicate that at least there is a definite link or expected link present in this patient between the peripheral arterial system and generalized atherosclerosis.

The Soterogram is for the evaluation of generalized atherosclerosis. The ABlgram and PADogram are for evaluation of peripheral arterial disease. It is common for a physician to want to use the Soteria Cardiac Platform to evaluate both generalized atherosclerosis and peripheral arterial disease. Therefore, to be complete we are providing Table 4 which give the billing information for the ABlgram (CPT 93922) and the PADogram (CPT 93923).
**Table 4**

<table>
<thead>
<tr>
<th>Clinical Correlation – ABIgram and PADogram</th>
<th>ICD-10 Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients with / or Expected Peripheral Arterial involving the native arteries of the Lower Extremities (1 Level 1 code)</td>
<td>I70.203</td>
</tr>
<tr>
<td>Patients with clinical presentations described by these ICD-10 Codes should be <strong>ADDED</strong> to the I70.203 code, when present. (13 codes)</td>
<td>I70.211, I70.212, I70.213, I70.218, I70.219, I70.221, I70.222, (I70.223, I70.228, I70.229, I70.231, I70.232, and I70.233.</td>
</tr>
</tbody>
</table>

**Example:** A 30 year old male presents to a Family Physician for a physical examination. At this point in time, the Patient has no known cardiovascular risk factors, however, the physician knows that at least 20% of patients, like the current patient, harbor generalized atherosclerosis that perhaps places this patient on a cardiovascular trajectory that will have negative future consequences. Further, the physician knows that if that is the finding, corrective action can be taken to adjust the current cardiovascular trajectory and that waiting will decrease the potential for successful treatment. The physician orders a **Soterogram**. The Physician clearly and briefly documents the rationale for ordering the **Soterogram** in the patient’s Medical Record.

When the Billing is performed to link with peripheral arterial testing (CPT 93923) with the diagnosis of generalized atherosclerotic disease, the ICD-10 used is I73.9.

To broaden the example, if the physician wanted to also evaluate peripheral arterial disease in the patient he may order a **ABIgram**. The CPT Code is 93922 and the ICD-10 code is I70.203. If the Patient also had evidence of peripheral vascular disease (expected, documented, or with symptoms), such as right lower extremity intermittent claudication, a second ICD-10 Code should be added to the claim (I70.211).

This Example would not be complete without a brief discussion regarding the use of **Modifiers**. Modifiers are used to give the Physician more flexibility in ordering evaluations and testing and to appraise the Claim Reviewer of the physician’s rationale. Soteria, and others like to think of Patient Examinations and Patient Procedures as being different.

When a physician listens, palpates, or questions a patient, that is an Examination. When a **Soterogram**, x-ray, ECG, or MRI is performed, that is a Procedure, often performed on the strength of an Examination. It should be clearly understood that the Procedure and Diagnostic Codes used for an Examination are different than the Procedure and Diagnostic Codes used for a Procedure. However, a physician may very well elect to perform an Examination and Procedure on a patient on the SAME day. To make this rationale clear to the Claim Reviewer, a Modifier should be used. In this case we recommend **Modifier 25**.
Further, a physician may elect to perform two related Procedures on the same day, but for different reasons. For example, the physician feels the patient may have peripheral vascular disease and needs the findings of an **ABIgram** to clarify this diagnosis (CPT 93922). At the same time he wants to know the status of this patient’s arterial elasticity and atherosclerotic burden. For this the physician orders a **Soterogram** (CPT 93923). Since, CPT 93922 and 93923 are not normally performed on the SAME day. To make this rationale clear to the Claim Reviewer, a modifier should be used. In this case we recommend **Modifier 59**.

With ICD-10 the number of codes and therefore the specificity of the codes have been markedly expanded. For CPT 93923 this specific expansion is from 54 ICD-9 Codes to 155 ICD-10 Codes. The effects clearly carry negative and positive features. On the negative side, all medical professionals will have to learn and know how to use a very significantly expanded listing of ICD Codes. There is a positive side, namely, expanded specificity will allow the Providers to more clearly define a patient’s status to the Carrier. The hope is that this clarity will better serve patients and medical professionals and importantly, result in more efficient and fair payment mechanics.

One additional note is instructive. On 10-01-15, CMS (Medicare and Medicaid) issued ICD-10 codes which included a massive increase in Diagnostic Coding (ICD-9 to ICD-10). This coding change included a broad range of Preventive Medicine Screening Codes, referred to as Z Codes. The Z Code for Cardiovascular Screening Diagnostics is **Z13.6**. In reality if a physician is “screening”, this code for cardiovascular disease should be used. The Clients of Soteria Medical, LLC have found that despite the publications of the CMS, when the Z Codes are used, a small percentage of the claims are denied and require resubmission. When the transitional codes for ICD-10 given in the Update Document, denials are absent. We believe the issue with the Z Codes is associated with the newness of the Z Codes. Therefore, for this reason, we are suggesting the use of the transition codes described above, at this time.

3. **Rapid Billing Summary**

(i) **Soterogram** – CPT: 93923, ICD-10: I73.9, (ii) **ABIgram** – CPT: 93922,  ICD-10:I70.203, (iii) Modifier on CPT 93922 if 93922 and 93923 are performed on the same day, and (iv) physician documents in the Patient’s Medical Record that his expectations of peripheral arterial disease and generalized atherosclerosis are high, INDEPENDENT of current patient cardiovascular signs and symptoms.