

# Cardio Policy:

## Arterial Duplex

<b>POLICY NUMBER</b> UM CARDIO_1076	<b>SUBJECT</b> Arterial Duplex (upper and lower extremities)		<b>DEPT/PROGRAM</b> UM Dept	<b>PAGE 1 OF 5</b>
<b>DATES COMMITTEE REVIEWED</b> 04/01/11, 11/07/12, 03/10/14, 06/16/14, 02/19/15, 08/12/15, 11/23/16, 10/10/17, 02/13/19, 02/21/19, 04/23/19, 12/11/19, 05/13/20, 07/31/20, 03/10/21, 08/11/21, 09/08/21, 09/14/22, 01/11/23, 02/01/23, 05/10/23, 12/20/23	<b>APPROVAL DATE</b> December 20, 2023	<b>EFFECTIVE DATE</b> December 22, 2023	<b>COMMITTEE APPROVAL DATES</b> 04/01/11, 11/07/12, 03/10/14, 06/16/14, 02/19/15, 08/12/15, 11/23/16, 10/10/17, 02/13/19, 02/21/19, 04/23/19, 12/11/19, 05/13/20, 07/31/20, 03/10/21, 08/11/21, 09/08/21, 09/14/22, 01/11/23, 02/01/23, 05/10/23, 12/20/23	
<b>PRIMARY BUSINESS OWNER: UM</b>		<b>COMMITTEE/BOARD APPROVAL</b> Utilization Management Committee		
<b>URAC STANDARDS</b> HUM v8: UM 1-2; UM 2-1	<b>NCQA STANDARDS</b> UM 2		<b>ADDITIONAL AREAS OF IMPACT</b>	
<b>CMS REQUIREMENTS</b>	<b>STATE/FEDERAL REQUIREMENTS</b>		<b>APPLICABLE LINES OF BUSINESS</b> Commercial, Exchange, Medicaid	

### I. PURPOSE

Indications for determining medical necessity for arterial duplex of the extremities.

### II. DEFINITIONS

Duplex ultrasound imaging of the major arteries in the extremities is for assessing any abnormalities in the blood flow.

An appropriate diagnostic or therapeutic procedure is one in which the expected clinical benefit exceeds the risks or negative consequences of the procedure by a sufficiently wide margin such that the procedure is generally considered acceptable or reasonable care. The ultimate objective of AUC is to improve patient care and health outcomes in a cost-effective manner but is not intended to ignore ambiguity and nuance intrinsic to clinical decision making.

Appropriate Care- Median Score 7-9

May be Appropriate Care- Median Score 4-6

Rarely Appropriate Care- Median Score 1-3

Guideline directed medical therapy (GDMT) are outlined by joint American College of Cardiology (ACC)/American Heart Association (AHA) in cardiovascular clinical practice guidelines as Class I recommendation. These are maximally tolerated medications for a cardiovascular condition, when prescribed, have shown to improve healthcare outcomes such as survival along with significant reduction in the major adverse cardiovascular events and hospitalization. For all recommended drug treatment regimens, the prescriber should confirm the dosage with product insert material and carefully evaluate for contraindications and interactions.

### III. POLICY

#### Indications for approving a request for medical necessity are:

- A. Evaluation of patient that has developed sudden pallor, numbness, and coolness of an extremity and vascular obstruction is suspected. **(AUC Score 9)**<sup>1,2,3,4,5,6</sup>
- B. Evaluation of a patient with no prior diagnosis of peripheral artery disease (PAD) presenting with leg pain, claudication, and Ankle Brachial Index (ABI) greater than or equal to 1.3. **(AUC Score 9)**<sup>1,2,3,4,5,6</sup>
- C. Evaluation of a patient with no prior diagnosis of PAD presenting with leg pain, claudication, and Ankle Brachial Index (ABI) less than or equal to 0.9 done within the last 12 months. **(AUC Score 9)**<sup>1,2,3,4,5,6</sup>
- D. Evaluation of a patient with no prior diagnosis of PAD, with and or without Diabetes Mellitus, presenting with leg pain, claudication and decreased infra-popliteal pulses and no prior ABI within the last 12 months. **(AUC Score 9)**<sup>1,2,3,4,5,6</sup>
- E. Evaluation of a patient with PAD risk factors presenting with leg pain and/or with clinical presentation suggestive of critical limb ischemia i.e., absent, or markedly diminished infra-popliteal pulses and no prior arterial duplex done within the last 3 months. **(AUC Score 9)**<sup>1,2,3,4,5,6</sup>
- F. Evaluation of asymptomatic patient with PAD risk factors- age greater than or equal to 65 years or Age 50-64 years with one or more risk factors for atherosclerosis (diabetes mellitus, history of smoking, hyperlipidemia, hypertension, family history of PAD) or with known atherosclerotic disease in another vascular bed (coronary, carotid, subclavian, renal, mesenteric artery stenosis, or AAA) and with no prior diagnosis of lower extremity PAD and with abnormal quantified volume plethysmography (Quantaflo) result (less than 0.6). No prior arterial duplex done within last 6 months. **(AUC Score 6)**<sup>4,5</sup>
- G. Evaluation of symptomatic patient with PAD risk factors- age greater than or equal to 65 years or Age 50-64 years with one or more risk factors for atherosclerosis (diabetes mellitus, history of smoking, hyperlipidemia, hypertension, family history of PAD) or with known atherosclerotic disease in another vascular bed (coronary, carotid, subclavian, renal, mesenteric artery stenosis, or AAA), with no prior diagnosis of lower extremity PAD and abnormal quantified volume plethysmography (Quantaflo) result (less than 0.6). No prior arterial duplex done within last 6 months. **(AUC Score 6)**<sup>4,5</sup>
- H. Evaluation of a patient with no prior diagnosis of PAD presenting with foot or toe ulcer or gangrene or with infection of leg/foot without palpable pulses and no prior arterial duplex done within the last 3 months. **(AUC Score 9)**<sup>1,2,3,4,5,6</sup>
- I. Evaluation of a patient who has undergone lower extremity Percutaneous or Surgical Intervention, presenting with new or worsening lifestyle-limiting claudication or with non-healing ulceration despite being on maximally tolerated GDMT. **(AUC Score 9)**<sup>1,2,3,4,5,6,8,9,10,11,12,13</sup>
- J. Evaluation of a patient with PAD and has not undergone lower extremity Percutaneous or Surgical Intervention, presenting with new or worsening lifestyle-limiting claudication or with non-healing ulceration despite being on maximally tolerated GDMT. **(AUC Score 8)**<sup>1,2,3,4,5,6,8,9,10,11,12,13</sup>
- K. An initial surveillance duplex in asymptomatic patients on maximally tolerated GDMT after lower extremity Percutaneous or Surgical intervention can be done as a baseline. **(AUC Score 8)**<sup>1,2,3,4,5,6,,8,9,10,11,12,13</sup>

- L. Surveillance duplex in asymptomatic patients on maximally tolerated GDMT after lower extremity Surgical Intervention can be done at 6 months after baseline study. **(AUC Score 8)**<sup>1,2,3,4,5,6,,8,9,10,11,12,13</sup>
- M. Surveillance duplex in asymptomatic patients maximally tolerated GDMT after lower extremity Percutaneous or Surgical Intervention is appropriate annually for 3 years, provided there is no change in clinical status, after the baseline study. **(AUC Score 7)**<sup>1,2,3,4,5,6,,8,9,10,11,12,13</sup>
- N. Evaluation of a patient that has an aneurysm or arteriovenous malformation of a lower extremity with no prior arterial duplex within the last 12 months. **(AUC Score 7)**<sup>1,2,3,4,5,6</sup>
- O. Evaluation of a patient after femoral access procedure who has developed or is suspected to have developed groin complications e.g., a pseudo aneurysm or arteriovenous malformation of a lower extremity with no prior duplex since the procedure. **(AUC Score 8)**<sup>1,2,3,4,5,6</sup>
- P. Evaluation of a patient that has sustained lower extremity trauma with possible vascular injury with no prior duplex since the injury. **(AUC Score 9)**<sup>1,2,3,4,5,6</sup>
- Q. Evaluation of upper extremity with duplex is appropriate in presence of claudication, ulcer, suspected thoracic outlet syndrome, trauma, pre-op radial artery harvest for CABG, presence of pulsatile mass or evidence of ischemia or bruit after vascular access with no prior arterial duplex within the last 3 months. **(AUC Score 8)**<sup>1,2,3,4,5,6</sup>
- R. Evaluation of a patient who has undergone upper extremity Percutaneous or Surgical Intervention, presenting with new or worsening lifestyle-limiting claudication despite being on maximally tolerated GDMT. **(AUC Score 8)**<sup>1,2,3,4,5,6,,8,9,10,11,12,13</sup>
- S. Surveillance of a patient on maximally tolerated GDMT after upper extremity PAD after revascularization is appropriate if done within one month of procedure as baseline. **(AUC Score 8)**<sup>1,2,3,4,5,6,,8,9,10,11,12,13</sup>
- T. Surveillance duplex in asymptomatic patients on maximally tolerated GDMT after upper extremity surgical intervention can be done at 6 months following baseline study post intervention. **(AUC Score 7)**<sup>1,2,3,4,5,6,</sup>
- U. Surveillance duplex in asymptomatic patients on maximally tolerated GDMT after upper extremity Percutaneous or Surgical intervention can be done annually for 3 years, provided there is no change in clinical status after baseline study post intervention. **(AUC Score 7)**<sup>1,2,3,4,5,6,,8,9,10,11,12,13</sup>

#### **Limitations:**

- A. It is preferred that the use of non-invasive physiologic and imaging studies for post catheter-based or surgical intervention surveillance as per K-M and S-U above is limited to one modality i.e., either ABI or PVR or duplex ultrasound. It is also preferred that utilization of that chosen modality be consistent throughout the surveillance period. Additional modalities may be utilized only if clinical or symptomatic changes are documented.
- B. The use of non-invasive physiologic and imaging studies for screening, or initial workup is limited to one modality i.e., either ABI or PVR or duplex ultrasound.
- C. Requests for services that are part of a surveillance protocol for patients who are involved in a clinical trial are considered out of scope (OOS) for New Century Health and cannot be reviewed.

## **IV. PROCEDURE**

- A. To review a request for medical necessity, the following items must be submitted for review:
  - 1. Progress note that prompted request,
  - 2. All previous vascular studies performed,
  - 3. Progress note from Vascular Surgeon (if seen previously by a surgeon)
- B. Primary codes appropriate for this service:
  - 93925 (Bilateral lower extremity)
  - 93926 (Unilateral lower extremity)
  - 93930 (Bilateral upper extremity)
  - 93931 (Unilateral upper extremity)

## V. APPROVAL AUTHORITY

- A. Review – Utilization Management Department
- B. Final Approval – Utilization Management Committee

## VI. ATTACHMENTS

- A. None

## VII. REFERENCES

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