

# Corlopam (fenoldopam)

Indication: Short term (up to 48 hours) for management of severe hypertension including malignant hypertension with deteriorating end organ function

Standard Concentration: 40mcg/ml

Stable for 24 hours at room temperature

Dosing:

Rate initiation should be based on one of the following dosing charts

Initial doses of 0.03-0.1mcg/kg/min are associated with less reflex tachycardia and are preferred to higher initial doses (e.g. 0.3mcg/kg/min)

**DO NOT USE A BOLUS!!!!**

Most of the effects of a given infusion rate are attained by 15 minutes. Therefore, doses should be titrated no sooner than every 15 minutes.

Recommended increments for titration are 0.05-0.1mcg/kg/min

Mild to Moderate Hypertensive Patients

| Time Point and Mean Change From Time Zero +/- SE | Infusion Rate (mcg/kg/min) |            |            |            |
|--|----------------------------|------------|------------|------------|
|  | 0.04<br>n=7                | 0.1<br>n=7 | 0.4<br>n=5 | 0.8<br>n=6 |
| 15 Minutes of Infusion                           |                            |            |            |            |
| Systolic BP                                      | -15 ± 6                    | -19 ± 8    | -14 ± 4    | -24 ± 6    |
| Diastolic BP                                     | -5 ± 3                     | -12 ± 4    | -15 ± 3    | -20 ± 4    |
| Heart Rate                                       | +3 ± 2                     | +5 ± 1     | +16 ± 3    | +19 ± 3    |
| 30 Minutes of Infusion                           |                            |            |            |            |
| Systolic BP                                      | -17 ± 6                    | -18 ± 6    | -14 ± 8    | -26 ± 6    |
| Diastolic BP                                     | -7 ± 3                     | -16 ± 4    | -14 ± 3    | -20 ± 2    |
| Heart Rate                                       | +3 ± 2                     | +10 ±      | +18 ± 3    | +23 ± 3    |
| 1 Hour of Infusion                               |                            |            |            |            |
| Systolic BP                                      | -22 ± 7                    | -22 ± 7    | -26 ± 9    | -22 ± 9    |
| Diastolic BP                                     | -9 ± 2                     | -18 ± 4    | -19 ± 4    | -21 ± 1    |
| Heart Rate                                       | +5 ± 2                     | +12 ± 3    | +19 ± 4    | +25 ± 4    |
| 4 Hours of Infusion                              |                            |            |            |            |
| Systolic BP                                      | -16 ± 9                    | -31 ± 15   | -22 ± 11   | -25 ± 7    |
| Diastolic BP                                     | -8 ± 4                     | -19 ± 9    | -25 ± 3    | -20 ± 1    |
| Heart Rate                                       | +6 ± 3                     | +10 ± 4    | +21 ± 2    | +27 ± 7    |
| 24 Hours of Infusion                             |                            |            |            |            |
| Systolic BP                                      | -23 ± 8                    | -35 ± 7    | -22 ± 6    | -23 ± 11   |
| Diastolic BP                                     | -11 ± 5                    | -23 ± 10   | -22 ± 5    | -13 ± 3    |
| Heart Rate                                       | +5 ± 3                     | +13 ± 2    | +17 ± 4    | +15 ± 3    |
| 48 Hours of Infusion                             |                            |            |            |            |
| Systolic BP                                      | -31 ± 6                    | -22 ± 8    | -9 ± 6     | -14 ± 10   |
| Diastolic BP                                     | -10 ± 6                    | -9 ± 7     | -9 ± 2     | -9 ± 3     |
| Heart Rate                                       | 0 ± 4                      | +1 ± 4     | +12 ± 3    | +8 ± 3     |

Hypertensive Emergency Patients

| Time Point and Mean Change From Time Zero +/- SE | Infusion Rate (mcg/kg/min) |            |            |            |
|--|----------------------------|------------|------------|------------|
|  | 0.04<br>n=7                | 0.1<br>n=7 | 0.4<br>n=5 | 0.8<br>n=6 |
| Pre-Infusion Baseline                            |                            |            |            |            |
| Systolic BP                                      | 210 ± 21                   | 208 ± 26   | 205 ± 24   | 211 ± 17   |
| Diastolic BP                                     | 136 ± 16                   | 135 ± 11   | 133 ± 14   | 136 ± 15   |
| Heart Rate                                       | 87 ± 20                    | 84 ± 14    | 81 ± 19    | 80 ± 14    |
| 15 Minutes of Infusion                           |                            |            |            |            |
| Systolic BP                                      | -5 ± 4                     | -7 ± 4     | -16 ± 4    | -19 ± 4    |
| Diastolic BP                                     | -5 ± 3                     | -8 ± 3     | -12 ± 2    | -21 ± 2    |
| Heart Rate                                       | -2 ± 3                     | +1 ± 1     | +2 ± 1     | +11 ± 2    |
| 30 Minutes of Infusion                           |                            |            |            |            |
| Systolic BP                                      | -6 ± 4                     | -11 ± 4    | -21 ± 3    | -16 ± 4    |
| Diastolic BP                                     | -10 ± 3                    | -12 ± 3    | -17 ± 3    | -20 ± 2    |
| Heart Rate                                       | -2 ± 3                     | -1 ± 1     | +3 ± 2     | +12 ± 3    |
| 1 Hour of Infusion                               |                            |            |            |            |
| Systolic BP                                      | -5 ± 3                     | -9 ± 4     | -19 ± 4    | -22 ± 4    |
| Diastolic BP                                     | -8 ± 3                     | -13 ± 3    | -18 ± 2    | -23 ± 2    |
| Heart Rate                                       | -1 ± 3                     | 0 ± 2      | +3 ± 2     | +11 ± 3    |
| 4 Hours of Infusion                              |                            |            |            |            |
| Systolic BP                                      | -14 ± 4                    | -20 ± 5    | -23 ± 4    | -37 ± 4    |
| Diastolic BP                                     | -12 ± 3                    | -18 ± 3    | -21 ± 3    | -29 ± 3    |
| Heart Rate                                       | -2 ± 4                     | 0 ± 2      | +4 ± 2     | +11 ± 2    |

# Corloпам (Continued)

| Patient Weight (kg)    | 45   | 50   | 55   | 60   | 65   | 70   | 75   | 80   | 85    | 90    | 95    | 100   | 105   | 110   | 115   | 120   | 125   | 130   |
|------------------------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.05mcg/kg/min (ml/hr) | 3.4  | 3.8  | 4.1  | 4.5  | 4.9  | 5.3  | 5.6  | 6.0  | 6.4   | 6.8   | 7.1   | 7.5   | 7.9   | 8.3   | 8.6   | 9.0   | 9.4   | 9.8   |
| 0.1mcg/kg/min (ml/hr)  | 6.8  | 7.5  | 8.3  | 9.0  | 9.8  | 10.5 | 11.3 | 12.0 | 12.8  | 13.5  | 14.3  | 15.0  | 15.8  | 16.5  | 17.3  | 18.0  | 18.8  | 19.5  |
| 0.15mcg/kg/min (ml/hr) | 10.1 | 11.3 | 12.4 | 13.5 | 14.6 | 15.8 | 16.9 | 18.0 | 19.1  | 20.3  | 21.4  | 22.5  | 23.6  | 24.8  | 25.9  | 27.0  | 28.1  | 29.3  |
| 0.2mcg/kg/min (ml/hr)  | 13.5 | 15.0 | 16.5 | 18.0 | 19.5 | 21.0 | 22.5 | 24.0 | 25.5  | 27.0  | 28.5  | 30.0  | 31.5  | 33.0  | 34.5  | 36.0  | 37.5  | 39.0  |
| 0.25mcg/kg/min (ml/hr) | 16.9 | 18.8 | 20.6 | 22.5 | 24.4 | 26.3 | 28.1 | 30.0 | 31.9  | 33.8  | 35.6  | 37.5  | 39.4  | 41.3  | 43.1  | 45.0  | 46.9  | 48.8  |
| 0.3mcg/kg/min (ml/hr)  | 20.3 | 22.5 | 24.8 | 27.0 | 29.3 | 31.5 | 33.8 | 36.0 | 38.3  | 40.5  | 42.8  | 45.0  | 47.3  | 49.5  | 51.8  | 54.0  | 56.3  | 58.5  |
| 0.35mcg/kg/min (ml/hr) | 23.6 | 26.3 | 28.9 | 31.5 | 34.1 | 36.8 | 39.4 | 42.0 | 44.6  | 47.3  | 49.9  | 52.5  | 55.1  | 57.8  | 60.4  | 63.0  | 65.6  | 68.3  |
| 0.4mcg/kg/min (ml/hr)  | 27.0 | 30.0 | 33.0 | 36.0 | 39.0 | 42.0 | 45.0 | 48.0 | 51.0  | 54.0  | 57.0  | 60.0  | 63.0  | 66.0  | 69.0  | 72.0  | 75.0  | 78.0  |
| 0.45mcg/kg/min (ml/hr) | 30.4 | 33.8 | 37.1 | 40.5 | 43.9 | 47.3 | 50.6 | 54.0 | 57.4  | 60.8  | 64.1  | 67.5  | 70.9  | 74.3  | 77.6  | 81.0  | 84.4  | 87.8  |
| 0.5mcg/kg/min (ml/hr)  | 33.8 | 37.5 | 41.3 | 45.0 | 48.8 | 52.5 | 56.3 | 60.0 | 63.8  | 67.5  | 71.3  | 75.0  | 78.8  | 82.5  | 86.3  | 90.0  | 93.8  | 97.5  |
| 0.55mcg/kg/min (ml/hr) | 37.1 | 41.3 | 45.4 | 49.5 | 53.6 | 57.8 | 61.9 | 66.0 | 70.1  | 74.3  | 78.4  | 82.5  | 86.6  | 90.8  | 94.9  | 99.0  | 103.1 | 107.3 |
| 0.6mcg/kg/min (ml/hr)  | 40.5 | 45.0 | 49.5 | 54.0 | 58.5 | 63.0 | 67.5 | 72.0 | 76.5  | 81.0  | 85.5  | 90.0  | 94.5  | 99.0  | 103.5 | 108.0 | 112.5 | 117.0 |
| 0.65mcg/kg/min (ml/hr) | 43.9 | 48.8 | 53.6 | 58.5 | 63.4 | 68.3 | 73.1 | 78.0 | 82.9  | 87.8  | 92.6  | 97.5  | 102.4 | 107.3 | 112.1 | 117.0 | 121.9 | 126.8 |
| 0.7mcg/kg/min (ml/hr)  | 47.3 | 52.5 | 57.8 | 63.0 | 68.3 | 73.5 | 78.8 | 84.0 | 89.3  | 94.5  | 99.8  | 105.0 | 110.3 | 115.5 | 120.8 | 126.0 | 131.3 | 136.5 |
| 0.75mcg/kg/min (ml/hr) | 50.6 | 56.3 | 61.9 | 67.5 | 73.1 | 78.8 | 84.4 | 90.0 | 95.6  | 101.3 | 106.9 | 112.5 | 118.1 | 123.8 | 129.4 | 135.0 | 140.6 | 146.3 |
| 0.8mcg/kg/min (ml/hr)  | 54.0 | 60.0 | 66.0 | 72.0 | 78.0 | 84.0 | 90.0 | 96.0 | 102.0 | 108.0 | 114.0 | 120.0 | 126.0 | 132.0 | 138.0 | 144.0 | 150.0 | 156.0 |

**Adverse reactions:** headache, flushing, nausea, hypotension, reflex tachycardia

**Drug interactions:** Beta blockers (high risk of hypotension), Metoclopramide (peripherally acting dopamine agonists may inhibit blood pressure effects of Corloпам), MAOI's (MAOI's may cause additive hypotensive effects of Corloпам)

**Precautions:** Patients with sulfite allergy, glaucoma

**Nursing Considerations:**

1. If hypotension occurs, discontinue the Corloпам
2. Administer by IV infusion only (no bolus)
3. Titrate up or down every 15 minutes
4. Monitor vitals and blood pressure frequently
5. Monitor cardiac rhythm, labs
6. Onset of effect is 15 minutes, and it peaks in 20 minutes.