## 17. Hypertension

| Hypertension                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                              |                        |                                           |  |
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| Task / Activity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Self-Assessment /<br>Date | Competency Assessed<br>Y / N | Competency<br>Achieved | Signed off by Clinical<br>Assessor / Date |  |
| Knowledge and Education                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                              |                        |                                           |  |
| <ul> <li>Demonstrate an understanding of the holistic care of the patient with hypertension.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                              |                        |                                           |  |
| <ul> <li>Demonstrate an understanding of cardiovascular anatomy and physiology.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                              |                        |                                           |  |
| <ul> <li>Demonstrate an understanding of renal anatomy and physiology.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           |                              |                        |                                           |  |
| <ul> <li> demonstrate an understanding of the pathophysiology of hypertension.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                              |                        |                                           |  |
| Demonstrate an understanding of the normal values for blood pressure.  227                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                              |                        |                                           |  |
| Demonstrate an understanding of the diagnostic criteria of hypertension. <sup>228</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                              |                        |                                           |  |
| Demonstrate an understanding of the stages of hypertension. <sup>229</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                              |                        |                                           |  |
| <ul> <li>Demonstrate an understanding of severe hypertension and the need for urgent referral to specialist<br/>services.<sup>230</sup></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                              |                        |                                           |  |
| <ul> <li>Demonstrate an understanding of assessing cardiovascular disease risk.<sup>231</sup></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |                              |                        |                                           |  |
| <ul> <li>Demonstrate an understanding of carryout diagnostic testing for target organ damage<sup>232</sup>, including but</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                              |                        |                                           |  |
| not limited to:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                              |                        |                                           |  |
| <ul> <li>Fundoscopy.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                              |                        |                                           |  |
| Urine Albumin-creatinine ratio (ACR).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                              |                        |                                           |  |
| Our management of the standard and the |                           |                              |                        |                                           |  |
| <ul><li>Serum urea and electrolyte test.</li><li>ECG.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                              |                        |                                           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                              |                        |                                           |  |
| <ul> <li>Demonstrate an understanding of the impact of hypertension on co-morbidities and how this may<br/>impact treatment, including but not limited to:</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                              |                        |                                           |  |
| o Diabetes Mellitus. <sup>233</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                              |                        |                                           |  |
| <ul> <li>Chronic Kidney Disease.<sup>234</sup></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                              |                        |                                           |  |
| <ul> <li>Demonstrate an understanding of hypertension in pregnancy.<sup>235</sup></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                              |                        |                                           |  |

<sup>227</sup> https://www.nice.org.uk/guidance/ng136/chapter/Recommendations#measuring-blood-pressure

<sup>&</sup>lt;sup>228</sup> https://www.nice.org.uk/guidance/ng136/chapter/Recommendations#diagnosing-hypertension

 $<sup>{}^{229}\,\</sup>underline{https://www.nice.org.uk/guidance/ng136/chapter/recommendations\#stage-1-hypertension}$ 

 $<sup>{}^{230}\,\</sup>underline{https://www.nice.org.uk/guidance/ng136/chapter/Recommendations\#identifying-who-to-refer-for-same-day-specialist-review}$ 

<sup>&</sup>lt;sup>231</sup> https://www.nice.org.uk/guidance/cg181

<sup>232</sup> https://www.nice.org.uk/guidance/ng136/chapter/Recommendations#assessing-cardiovascular-risk-and-target-organ-damage

<sup>&</sup>lt;sup>233</sup> https://cks.nice.org.uk/topics/diabetes-type-2/management/management-adults/#cardiovascular-risk-factors

https://www.nice.org.uk/guidance/ng203/chapter/Recommendations#pharmacotherapy

<sup>&</sup>lt;sup>235</sup> https://www.nice.org.uk/guidance/ng133

| Hypertension                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                              |                        |                                           |  |  |
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| Task / Activity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Self-Assessment /<br>Date | Competency Assessed<br>Y / N | Competency<br>Achieved | Signed off by Clinical<br>Assessor / Date |  |  |
| <ul> <li>Demonstrate an understanding of the medicines used to treat hypertension, their mode of action, contraindications, and side effects.<sup>236</sup> <sup>237</sup></li> <li>Demonstrate an understanding of the impact of ethnicity on choice of treatment.<sup>238</sup></li> <li>Demonstrate the impact of age and multimorbidity on the decision to start treatment.</li> <li>Demonstrate an understanding of the diet and lifestyle measures used to support control of hypertension.<sup>239</sup></li> <li>Demonstrate an understand of the monitoring required for the patient with hypertension.<sup>240</sup></li> <li>Demonstrate an understanding of the limitations of devices used to measure blood pressure.<sup>241</sup></li> <li>Patient Care</li> <li>Under the supervision of a Registered Nurse</li> <li>Diagnosis:</li> <li>Be able to obtain accurate blood pressure readings using both manual and automatic devices.<sup>242</sup></li> <li>Be able to refer on for suitable ambulatory blood pressure test on identification of elevated in clinic reading, dependent on available local resource.<sup>243</sup></li> <li>Be able to support and educate patient to take accurate home blood pressure readings where ambulatory blood pressure is not available, suitable, or acceptable.</li> <li>Be able to perform appropriate testing to identify any end organ damage.<sup>244</sup></li> <li>Be able to ensure the patent has had the opportunity to discuss their diagnosis with a Registered Nurse and that they have received appropriate education, support and resources where needed.<sup>245</sup></li> <li>Be able to have a shared decision-making discussion with the patient about diet and lifestyle changes.<sup>246</sup></li> </ul> |                           |                              |                        |                                           |  |  |

<sup>&</sup>lt;sup>236</sup> https://bnf.nice.org.uk/treatment-summaries/hypertension/

<sup>237</sup> https://www.nice.org.uk/guidance/ng136/chapter/Recommendations#treating-and-monitoring-hypertension

<sup>&</sup>lt;sup>238</sup> https://www.nice.org.uk/guidance/ng136/chapter/Recommendations#treating-and-monitoring-hypertension

<sup>&</sup>lt;sup>239</sup> https://www.nice.org.uk/guidance/ng136/chapter/Recommendations#treating-and-monitoring-hypertension

<sup>&</sup>lt;sup>240</sup> https://www.nice.org.uk/guidance/ng136/chapter/Recommendations#treating-and-monitoring-hypertension

<sup>&</sup>lt;sup>241</sup> https://www.nice.org.uk/guidance/ng136/chapter/Recommendations#measuring-blood-pressure

 $<sup>{}^{242}\,\</sup>underline{https://www.nice.org.uk/guidance/ng136/chapter/Recommendations\#measuring-blood-pressure}$ 

<sup>&</sup>lt;sup>243</sup> https://www.nice.org.uk/guidance/ng136/chapter/Recommendations#diagnosing-hypertension

<sup>&</sup>lt;sup>244</sup> https://www.nice.org.uk/guidance/ng136/chapter/recommendations#assessing-cardiovascular-risk-and-target-organ-damage

<sup>&</sup>lt;sup>245</sup> https://www.bhf.org.uk/informationsupport/risk-factors/high-blood-pressure

https://www.nice.org.uk/guidance/ng136/resources/how-do-i-control-my-blood-pressure-lifestyle-options-and-choice-of-medicines-patient-decision-aid-pdf-6899918221

https://www.nice.org.uk/guidance/ph49/chapter/Recommendations#recommendation-9-deliver-very-brief-brief-extended-brief-and-high-intensity-behaviour-change

| Hypertension                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           |                              |                        |                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------|------------------------|-------------------------------------------|
| Task / Activity                                                                                                                                                                                                                                                                                                                                                                                                                                         | Self-Assessment /<br>Date | Competency Assessed<br>Y / N | Competency<br>Achieved | Signed off by Clinical<br>Assessor / Date |
| <ul> <li>Be able to discuss available, suitable medications with patient explaining mode of action and side effects<br/>and refer on to suitable prescribing clinician where appropriate.<sup>248</sup></li> <li>At Review:</li> </ul>                                                                                                                                                                                                                  |                           |                              |                        |                                           |
| <ul> <li>Be able to discuss and review patient's adherence to medications and support them to improve this.<sup>249</sup></li> <li>Be able to revisit diet and lifestyle changes to support improved management of hypertension.</li> <li>Be able to, on a discussion with a Registered Nurse, initiate monitoring tests needed to assess for target organ damage and those required for medication monitoring.<sup>250</sup> <sup>251</sup></li> </ul> |                           |                              |                        |                                           |
| Be able to discuss with patient where medication changes may be needed and refer on to appropriate prescribing clinician.                                                                                                                                                                                                                                                                                                                               |                           |                              |                        |                                           |
| <ul> <li>Be able to identify when lying and standing blood pressure readings would be needed and take action as<br/>per local and national guidance.<sup>252</sup></li> </ul>                                                                                                                                                                                                                                                                           |                           |                              |                        |                                           |
| <ul> <li>Be able to support patients with white coat hypertension to provide home blood pressure readings being<br/>aware of the difference in diagnostic threshold.<sup>253</sup></li> </ul>                                                                                                                                                                                                                                                           |                           |                              |                        |                                           |
| <ul> <li>Be able to advise on suitable timeframe for follow up to ensure appropriate ongoing monitoring.<sup>254</sup></li> <li>Be able to ensure the patient has been given robust safety netting advice regarding signs of severe hypertension, and side effects to medication <sup>255</sup> <sup>256</sup> by a suitable senior clinician.</li> </ul>                                                                                               |                           |                              |                        |                                           |
| Be able to identify when patient complexity exceeds competence and refer on to suitable senior clinician.                                                                                                                                                                                                                                                                                                                                               |                           |                              |                        |                                           |

https://www.nice.org.uk/guidance/ng136/resources/visual-summary-pdf-6899919517

<sup>249</sup> https://www.nice.org.uk/guidance/cg76

<sup>&</sup>lt;sup>250</sup> https://www.nice.org.uk/guidance/ng136/chapter/recommendations#assessing-cardiovascular-risk-and-target-organ-damage

<sup>&</sup>lt;sup>251</sup>https://bnf.nice.org.uk/treatment-summaries/hypertension/

<sup>&</sup>lt;sup>252</sup> https://www.nice.org.uk/guidance/ng136/chapter/recommendations#treating-and-monitoring-hypertension

<sup>253</sup> https://cks.nice.org.uk/topics/hypertension/management/management/#basis-for-recommendation-84a

<sup>&</sup>lt;sup>254</sup> https://www.nice.org.uk/guidance/ng136/chapter/recommendations#treating-and-monitoring-hypertension

 $<sup>{}^{255}\,\</sup>underline{https://www.nice.org.uk/guidance/ng136/chapter/recommendations\#identifying-who-to-refer-for-same-day-specialist-review}$ 

<sup>256</sup> https://bnf.nice.org.uk/treatment-summaries/hypertension/