

**Table 6** Ambulatory blood pressure measuring devices validated using the protocols of the Association for the Advancement of Medical Instrumentation and the British Hypertension Society

Device	Mode	Protocol			Recommendation
		AAMI*	BHS (systolic/ diastolic)†	Use	
Accutracker II (30/23) <sup>33</sup>	Auscultatory	Passed	A/C	At rest	Not recommended
CH-DRUCK <sup>34</sup>	Auscultatory	Passed	A/A	At rest	Recommended
Daypress 500 <sup>35</sup>	Oscillometric	Passed	A/B	At rest	Recommended
DIASYS 200 <sup>36</sup>	Auscultatory	Passed	C/C	At rest	Not recommended
DIASYS Integra <sup>37</sup>	Auscultatory	Passed	B/A	At rest	Recommended
	Oscillometric	Passed	B/B	At rest	Recommended
ES-H531 <sup>38</sup>	Auscultatory	Passed	A/A	At rest	Recommended
	Oscillometric	Passed	B/B	At rest	Recommended
Medilog ABP <sup>39</sup>	Auscultatory	Passed	NA	At rest	Questionable recommendation
Meditech ABPM-04 <sup>40</sup>	Oscillometric	Passed	B/B	At rest	Recommended
Nissei DS-240 <sup>41</sup>	Oscillometric	Passed	B/A	Only abstract available; details missing	Questionable recommendation
OSCILL-IT <sup>42</sup>	Oscillometric	Passed	C/B	At rest	Not recommended
Pressurometer IV <sup>43</sup>	Auscultatory	Failed	C/D	At rest	Not recommended
Profilomat <sup>44</sup>	Auscultatory	Passed	B/A	At rest	Recommended
Profilomat <sup>45</sup>	Auscultatory	Passed	B/C	In pregnancy	Not recommended
Profilomat II <sup>46</sup>	Oscillometric	Failed	C/B	At rest	Not recommended
QuietTrak <sup>47</sup>	Auscultatory	Passed	B/B	At rest	Recommended
QuietTrak <sup>48</sup>	Auscultatory	Passed	B/B	At rest; only abstract	Questionable recommendation
QuietTrak <sup>49</sup>	Auscultatory	Failed	D/D	In pre-eclampsia	Not recommended
QuietTrak <sup>50</sup>	Auscultatory	Failed	B/B	In pregnancy	Not recommended
QuietTrak <sup>51</sup>	Auscultatory	Passed	A/A	At rest	Recommended
			A/A	During exercise	Recommended
			A/A	Different postures	Recommended
			A/A	In elderly people	Recommended
			A/A	In children	Recommended
			A/A	In pregnancy	Recommended
Save 33, Model 2 <sup>52</sup>	Oscillometric	Passed	B/B	At rest	Recommended
Schiller BR-102 <sup>53</sup>	Auscultatory	Passed	B/B	At rest	Recommended
	Oscillometric	Failed	D/B	At rest	Not recommended
SpaceLabs 90202 <sup>54</sup>	Oscillometric	Passed	B/B	At rest	Recommended
SpaceLabs 90207 <sup>55</sup>	Oscillometric	Passed	B/B	At rest	Recommended
SpaceLabs 90207 <sup>56</sup>	Oscillometric	Passed	A/C	In pregnancy	Not recommended
SpaceLabs 90207 <sup>57</sup>	Oscillometric	Passed	B/B	In pregnancy	Recommended
SpaceLabs 90207 <sup>45</sup>	Oscillometric	Passed	B/C	In pregnancy	Not recommended
SpaceLabs 90207 <sup>49</sup>	Oscillometric	Failed	D/D	In pre-eclampsia	Not recommended
SpaceLabs 90207 <sup>58</sup>	Oscillometric	Passed	C/C	In pre-eclampsia	Not recommended
SpaceLabs 90207 <sup>59</sup>	Oscillometric	SBP Pass	C	In children	Not recommended
SpaceLabs 90207 <sup>59</sup>	Oscillometric	DBP Fail	D	In children	Not recommended
SpaceLabs 90207 <sup>60</sup>	Oscillometric	Passed	B/A	Elderly people standing and sitting (SBP ≤160 mmHg)	Recommended
SpaceLabs 90207 <sup>60</sup>	Oscillometric	Passed	D/A	Elderly people supine; tested at all pressures	Not recommended
SpaceLabs 90207 <sup>61</sup>	Oscillometric	Passed	C/B	During haemodialysis	Not recommended
SpaceLabs 90217 <sup>62</sup>	Oscillometric	Passed	A/A	At rest	Recommended
TM-2420/TM-2020 <sup>63</sup>	Oscillometric	Failed	D/D	At rest	Not recommended
TM-2420 Model 6 <sup>64</sup>	Oscillometric	Passed	B/B	At rest	Recommended
TM-2420 Model 7 <sup>65</sup>	Oscillometric	Passed	B/B	At rest	Recommended
TM-2421 <sup>66</sup>	Oscillometric	Passed	B/A	At rest	Recommended
TM-2421 <sup>67</sup>	Oscillometric	NA	A/B	In children aged 7-8 years sitting	Questionable recommendation
			A/B	In children of all ages sitting	Questionable recommendation
TM-2421 <sup>67</sup>	Auscultatory	NA	C/C	In children in different postures	Not recommended
Takeda 2430 <sup>68</sup>	Oscillometric	Passed	A/A	At rest	Recommended

AAMI=Association for the Advancement of Medical Instrumentation; BHS=British Hypertension Society; NA=not applied; SBP=systolic blood pressure; DBP=diastolic blood pressure.

\*To meet AAMI criteria the mean difference between the device and the mercury standard must be ≤5 mm Hg or the standard deviation must be ≤8 mm Hg.

†To meet BHS criteria devices must achieve a grade of at least B for both systolic and diastolic measurements. Grade A denotes greatest agreement with mercury standard and D denotes least agreement.

hundreds of devices available have been validated using the two protocols, of which only two met the criteria for recommendation in this review.<sup>63-75</sup> The much used anaeroid sphygmomanometer has only recently been

independently evaluated.<sup>12</sup> However, because these devices become inaccurate with use without this inaccuracy being apparent to the user, it is also necessary to validate them after they have been used for some time.<sup>13</sup>