Arterial hypertension is one of the most frequent diseases in the western world and is one of the three most important risk factors for heart diseases. The 2013 guidelines of the European Societies of Hypertension and Cardiology (ESH/ESC) provide a clear action plan for evidence-based diagnostics and therapeutic measures in hypertensive subjects and simplify target blood pressures across various patient groups. Non-pharmacological options play a central role in the treatment of arterial hypertension. The indications for drug therapy arise from three criteria including the level of hypertension, risk profile of the patient, as well as response to non-pharmacological therapy. For the first choice monotherapy five substance groups are available: diuretics, beta blockers, angiotensin-converting enzyme (ACE) inhibitors, angiotensin (AT) 1 receptor antagonists and calcium antagonists. By combination therapy, the responder rate can be significantly increased with respect to a normalization of blood pressure. A true treatment resistance, in which the therapeutic goal is not reached in spite of a triple combination with maximum dosage, is extremely rare. Further treatment options are combinations of four drug classes and changes of medication. Hypertensive emergencies require a rapid intervention; nevertheless, the magnitude of blood pressure lowering can greatly vary depending on the individual clinical picture.