Treatment

# An indian clinician outlook on hypertension care during Covid-19 pandemic 

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Background: Hypertension (HTN) has been found to increase the risk of Covid-19 mortality when compared with normotensives, and those discontinuing the antihypertensive treatment have an additional fatality risk.

Objective: The survey was carried out to seek the opinion of Indian healthcare practitioners (HCPs) on the risk factors, challenges and management of HTN during the ongoing Covid-19 pandemic.

Method: This was a structured web-based objective questionnaire survey involving 2545 HCPs PAN-India. The survey comprised questions related to the risk factors for HTN, home blood pressure monitoring (HBPM), BP control, treatment, complications and challenges of uncontrolled HTN during Covid-19.

Results: This study showed that tobacco use, obesity and comorbidities are top three modifiable risk factors for HTN followed by emotional stress, during Covid-19 pandemic. A majority of HCPs (44\%) reported that $<30 \%$ of their hypertensive patients check BP at home while $36 \%$ and $20 \%$ reported that $30-50 \%$ and $>50 \%$ of their patients respectively, practice HBPM. $20 \%, 63 \%$, and $17 \%$ of HCPs respectively, reported that $<20 \%, 20-40 \%$ and $>40 \%$ of their patients presented with BP $>150 / 100 \mathrm{mmHg}$ during lockdown. Of all the HCPs, $53 \%$ and $33 \%$ respectively, reported BP increase in $<20 \%$ and $20-40 \%$ of their patients on monotherapy while $14 \%$ of HCPs reported BP increase in $>40 \%$ of their patients on monotherapy during the lockdown. As compared to high dose monotherapy, dual and triple combination therapies (TDC) were selected as most preferred for the management of uncontrolled BP opted by $56 \%$ and $34 \%$ of the HCPs, respectively. The dual combination antihypertensives were ranked as angiotensin receptor blockers (ARB) + diuretic (DU) > ARB + calcium channel blockers (CCB) > ARB + beta-blocker. The TDC with ARB + CCB + DU was the most favored TDC antihypertensive therapy during Covid-19 era. Acute coronary syndrome was anticipated as the most common complication of HTN in the Covid-19 pandemic, followed by renal dysfunction, cerebral ischemia and cerebral hemorrhage reported by $47 \%, 17 \%, 14 \%$ and $14 \%$ of HCPs, respectively. Multiple challenges in HTN care during Cov-id-19 as opined by HCPs included BP measurement while avoiding the risk of infection (57\%), advising treatment via teleconsultation (48\%), dose modification (41\%), patient compliance (32\%) and transport-related issues (30\%). Most of the HCPs believed that self-monitoring of BP (32\%) and economical medicines (24\%) can improve medication adherence in patients with HTN.
Conclusion: The study underlined that the provision of economic medicines, single pill combinations, doctor-patient digital connect, and patient education can help in improving medication adherence leading to better outcomes in patients with HTN during Covid-19. The study also suggested the need to enhance HBPM and the use of ARB-based dual and triple combination therapies to improve BP control in patients uncontrolled on monotherapy during Covid-19 pandemic.

