

Breakout Session Discussion Questions

To foster conversation, participants will automatically be placed in breakout rooms after brief presentations for small group live discussion.

After the break-out sessions, participants will automatically rejoin the main session for report-outs.

SESSION 1: DIAGNOSIS AND MONITORING: UNIVERSAL APPROACHES FOR HIGH BLOOD PRESSURE

Group 1:

Moderator: L. Davis

Group Members: C. Biga; M. Countouris; J. Curtis; K. Ferdinand; S. Hammer; J. Jalil; I. Kronish

ACC Staff: A. Shinkar; A. Dearborn

Discussion Questions (Set A):

- 1. What is the most relevant focus with which health care providers can engage with SDOH to make a difference?
- 2. The PREVENT equation is AHA's new, sex-specific, race-free model for predicting risk of total cardiovascular disease. This model utilizes zip code as an indicator of the social determinant index (SDI). How widely is this model used in your practice? If you are not using it, what mechanism is your practice using to assess and address SDOH?
- 3. How does your practice address high-risk social needs in patients with hypertensive disorders in pregnancy? Are there any equity enhancing interventions to improve outcomes in high-risk women?
- 4. HTN management has become increasingly complex, with new medications, treatment options, advancing technologies, and team-based care involving both vertical and horizontal task shifting. What immediate steps can we take to ensure effective and coordinated delivery of HTN care in this complex environment? How can we ensure health equity within these increasingly complex systems of care?
- 5. To what degree has your organization/department implemented team-based care for the management of hypertension? If you have implemented such strategies, what challenges or barriers have you encountered? If you do not currently have a team-based care model, what are reasons for this (i.e., pain points)? What do you feel is required to overcome these challenges?
- 6. What possible solutions can the ACC develop to address the issues discussed during this session (e.g., mobile/online tools, education sessions, patient, or clinician resource materials)?



Group 2:

Moderator: K. Tobb

Group Members: T. Kobayashi; K. Lindley; G. Parati; D. Slade; S. Smith; L. Sperling; R. Ware

ACC Staff: E. Spoehr; M. Reynolds

Discussion Questions (Set A):

1. What is the most relevant focus with which health care providers can engage with SDOH to make a difference?

- 2. The PREVENT equation is AHA's new, sex-specific, race-free model for predicting risk of total cardiovascular disease. This model utilizes zip code as an indicator of the social determinant index (SDI). How widely is this model used in your practice? If you are not using it, what mechanism is your practice using to assess and address SDOH?
- 3. How does your practice address high-risk social needs in patients with hypertensive disorders in pregnancy? Are there any equity enhancing interventions to improve outcomes in high-risk women?
- 4. HTN management has become increasingly complex, with new medications, treatment options, advancing technologies, and team-based care involving both vertical and horizontal task shifting. What immediate steps can we take to ensure effective and coordinated delivery of HTN care in this complex environment? How can we ensure health equity within these increasingly complex systems of care?
- 5. To what degree has your organization/department implemented team-based care for the management of hypertension? If you have implemented such strategies, what challenges or barriers have you encountered? If you do not currently have a team-based care model, what are reasons for this (i.e., pain points)? What do you feel is required to overcome these challenges?
- 6. What possible solutions can the ACC develop to address the issues discussed during this session (e.g., mobile/online tools, education sessions, patient, or clinician resource materials)?



Group 3:

Moderator: C.A. Blyler

Group Members: A. Coca; S. DePalma; M. Echols; R. Kovacs; Z. Mahmoud; D. Shimbo; S. Taler

ACC Staff: G. Alexander; S. Bhatia

Discussion Questions (Set A):

1. What is the most relevant focus with which health care providers can engage with SDOH to make a difference?

- 2. The PREVENT equation is AHA's new, sex-specific, race-free model for predicting risk of total cardiovascular disease. This model utilizes zip code as an indicator of the social determinant index (SDI). How widely is this model used in your practice? If you are not using it, what mechanism is your practice using to assess and address SDOH?
- 3. How does your practice address high-risk social needs in patients with hypertensive disorders in pregnancy? Are there any equity enhancing interventions to improve outcomes in high-risk women?
- 4. HTN management has become increasingly complex, with new medications, treatment options, advancing technologies, and team-based care involving both vertical and horizontal task shifting. What immediate steps can we take to ensure effective and coordinated delivery of HTN care in this complex environment? How can we ensure health equity within these increasingly complex systems of care?
- 5. To what degree has your organization/department implemented team-based care for the management of hypertension? If you have implemented such strategies, what challenges or barriers have you encountered? If you do not currently have a team-based care model, what are reasons for this (i.e., pain points)? What do you feel is required to overcome these challenges?
- 6. What possible solutions can the ACC develop to address the issues discussed during this session (e.g., mobile/online tools, education sessions, patient, or clinician resource materials)?



Group 4:

Moderator: E. Yang

Group Members: D. Dixon; J. Flack; Y. Hong; B. McDowell; S. Sloane; F. Wyss; B. Zuckerman

ACC Staff: K. Byrd; A. Crowe

Discussion Questions (Set B):

1. Most BP trials include office-based BP measurements to guide treatment decisions, yet current guidelines reinforce the use of out-of-office readings to inform initiation or titration of anti-hypertensive therapies. Should we rely more on office-based or home-based readings for treatment decisions? How should discordant data be reconciled?

- 2. Are clinical trials with surrogate/intermediate endpoints (LVH or BNP), or clinical events (e.g., cardiovascular disease) needed to determine if self-monitored BP is superior to office-based measurements for guiding treatment?
- 3. Given historically poor hypertension screening rates, what simplified screening approaches should be considered to optimize clinic workflows without missing uncontrolled hypertension? While we must ensure high quality BP measurements are accessible to all patients, how should we prioritize patients given limited resources and infrastructure?
- 4. Cuff-based BP measurement devices are difficult for patients due to arm discomfort, improper sizing for large arm circumferences, and the alerting response an acute physiologic reaction to the tightening cuff. What benefits could cuffless devices offer to mitigate the challenges associated with validated cuff-based devices? How do we ensure appropriate validation of cuffless devices, considering that BP measurement devices are validated in controlled settings and not tested in special populations (i.e., obesity or pregnancy) or during physical activity/positional changes that significantly alters BP?
- 5. Analogous to moving from a fingerstick to continuous monitoring in diabetes, should HTN management abandon office-based blood pressure measurements for continuous monitoring and consider the time in therapeutic range?
- 6. What possible solutions can the ACC develop to address the issues discussed during this session (e.g., mobile/online tools, education sessions, patient, or clinician resource materials)?



Group 5:

Moderator: D. Kandzari

Group Members: T. Chang; D. Hettrick; A. Hinderliter; R. Kreutz; J. Lehman Cluett; A. Smith

ACC Staff: A. Covington

Discussion Questions (Set B):

- 1. Most BP trials include office-based BP measurements to guide treatment decisions, yet current guidelines reinforce the use of out-of-office readings to inform initiation or titration of anti-hypertensive therapies. Should we rely more on office-based or home-based readings for treatment decisions? How should discordant data be reconciled?
- 2. Are clinical trials with surrogate/intermediate endpoints (LVH or BNP), or clinical events (e.g., cardiovascular disease) needed to determine if self-monitored BP is superior to office-based measurements for guiding treatment?
- 3. Given historically poor hypertension screening rates, what simplified screening approaches should be considered to optimize clinic workflows without missing uncontrolled hypertension? While we must ensure high quality BP measurements are accessible to all patients, how should we prioritize patients given limited resources and infrastructure?
- 4. Cuff-based BP measurement devices are difficult for patients due to arm discomfort, improper sizing for large arm circumferences, and the alerting response an acute physiologic reaction to the tightening cuff. What benefits could cuffless devices offer to mitigate the challenges associated with validated cuff-based devices? How do we ensure appropriate validation of cuffless devices, considering that BP measurement devices are validated in controlled settings and not tested in special populations (i.e., obesity or pregnancy) or during physical activity/positional changes that significantly alters BP?
- 5. Analogous to moving from a fingerstick to continuous monitoring in diabetes, should HTN management abandon office-based blood pressure measurements for continuous monitoring and consider the time in therapeutic range?
- 6. What possible solutions can the ACC develop to address the issues discussed during this session (e.g., mobile/online tools, education sessions, patient, or clinician resource materials)?



Group 6:

Moderators: V. Bhalla; S. Juraschek

Group Members: B. Abuhalimeh; K. Bates; J. Reilly; J. Saseen; H. Wall; B. Williams

ACC Staff: S. Chavez

Discussion Questions (Set B):

1. Most BP trials include office-based BP measurements to guide treatment decisions, yet current guidelines reinforce the use of out-of-office readings to inform initiation or titration of anti-hypertensive therapies. Should we rely more on office-based or home-based readings for treatment decisions? How should discordant data be reconciled?

- 2. Are clinical trials with surrogate/intermediate endpoints (LVH or BNP), or clinical events (e.g., cardiovascular disease) needed to determine if self-monitored BP is superior to office-based measurements for guiding treatment?
- 3. Given historically poor hypertension screening rates, what simplified screening approaches should be considered to optimize clinic workflows without missing uncontrolled hypertension? While we must ensure high quality BP measurements are accessible to all patients, how should we prioritize patients given limited resources and infrastructure?
- 4. Cuff-based BP measurement devices are difficult for patients due to arm discomfort, improper sizing for large arm circumferences, and the alerting response an acute physiologic reaction to the tightening cuff. What benefits could cuffless devices offer to mitigate the challenges associated with validated cuff-based devices? How do we ensure appropriate validation of cuffless devices, considering that BP measurement devices are validated in controlled settings and not tested in special populations (i.e., obesity or pregnancy) or during physical activity/positional changes that significantly alters BP?
- 5. Analogous to moving from a fingerstick to continuous monitoring in diabetes, should HTN management abandon office-based blood pressure measurements for continuous monitoring and consider the time in therapeutic range?
- 6. What possible solutions can the ACC develop to address the issues discussed during this session (e.g., mobile/online tools, education sessions, patient, or clinician resource materials)?



SESSION 2: TREATMENT AND MANAGEMENT: PERSONALIZING STRATEGIES AND EXPLORING THERAPIES

Group 1:

Moderator: L. Davis

Group Members: C. Biga; M. Countouris; J. Curtis; K. Ferdinand; S. Hammer; J. Jalil; I. Kronish

ACC Staff: A. Shinkar; A. Dearborn

Discussion Questions:

- 2. What is the appropriate first step for managing uncontrolled HTN despite the use of three medications? Given concerns about cost and increasing complexity in treatment, is there a place for new and emerging pharmaceutical therapies? Will newer drugs for resistant HTN eventually replace spironolactone? Which patients should be referred for renal denervation? Should referrals be based on severity of HTN, patient preference, or both?
- 3. The 2017 ACC/AHA HTN guidelines recommend relatively similar BP treatment goals across multiple comorbidities. However, these guidelines do not directly align with disease-specific society recommendations for common comorbidities, such as those from the American Diabetes Association for T2D or KDIGO for CKD. How should we best communicate these discrepancies to non-specialists? Are there specific types of discrepancies, such as BP targets/drug class, that should be highlighted?
- 4. With the inclusion of additional goal-directed medical therapies such as SGLT inhibitors and non-steroidal MRAs for patients with diabetes or CKD, should more effort be focused on testing their direct effects on blood pressure? Should these therapies be incorporated into HTN recommendations? Is it time to consider moving away from ACE inhibitors, calcium channel blockers, and diuretics as first-line BP agents?
- 5. With the FDA's approval of potassium chloride (labelled as potassium-enriched salt), how real is the concern about hyperkalemia and sudden death from dietary sources among adults with chronic kidney disease or those taking potassium-raising medications? Can the argument of tradeoffs be justified, where the number of cardiovascular disease-related deaths averted outweigh the number of deaths from hyperkalemia, particularly in individuals with diabetes or CKD?
- 6. What possible solutions can the ACC develop to address the issues discussed during this session (e.g., mobile/online tools, education sessions, patient, or clinician resource materials)? Would a registry for patients with resistant HTN be useful, especially for those who would qualify and/or receive renal denervation?



Group 2:

Moderator: K. Tobb

Group Members: T. Kobayashi; K. Lindley; G. Parati; D. Slade; S. Smith; L. Sperling; R. Ware

ACC Staff: E. Spoehr; M. Reynolds

Discussion Questions:

- 2. What is the appropriate first step for managing uncontrolled HTN despite the use of three medications? Given concerns about cost and increasing complexity in treatment, is there a place for new and emerging pharmaceutical therapies? Will newer drugs for resistant HTN eventually replace spironolactone? Which patients should be referred for renal denervation? Should referrals be based on severity of HTN, patient preference, or both?
- 3. The 2017 ACC/AHA HTN guidelines recommend relatively similar BP treatment goals across multiple comorbidities. However, these guidelines do not directly align with disease-specific society recommendations for common comorbidities, such as those from the American Diabetes Association for T2D or KDIGO for CKD. How should we best communicate these discrepancies to non-specialists? Are there specific types of discrepancies, such as BP targets/drug class, that should be highlighted?
- 4. With the inclusion of additional goal-directed medical therapies such as SGLT inhibitors and non-steroidal MRAs for patients with diabetes or CKD, should more effort be focused on testing their direct effects on blood pressure? Should these therapies be incorporated into HTN recommendations? Is it time to consider moving away from ACE inhibitors, calcium channel blockers, and diuretics as first-line BP agents?
- 5. With the FDA's approval of potassium chloride (labelled as potassium-enriched salt), how real is the concern about hyperkalemia and sudden death from dietary sources among adults with chronic kidney disease or those taking potassium-raising medications? Can the argument of tradeoffs be justified, where the number of cardiovascular disease-related deaths averted outweigh the number of deaths from hyperkalemia, particularly in individuals with diabetes or CKD?
- 6. What possible solutions can the ACC develop to address the issues discussed during this session (e.g., mobile/online tools, education sessions, patient, or clinician resource materials)? Would a registry for patients with resistant HTN be useful, especially for those who would qualify and/or receive renal denervation?



Group 3:

Moderator: C.A. Blyler

Group Members: A. Coca; S. DePalma; M. Echols; R. Kovacs; Z. Mahmoud; D. Shimbo; S. Taler

ACC Staff: G. Alexander; S. Bhatia

Discussion Questions:

- 2. What is the appropriate first step for managing uncontrolled HTN despite the use of three medications? Given concerns about cost and increasing complexity in treatment, is there a place for new and emerging pharmaceutical therapies? Will newer drugs for resistant HTN eventually replace spironolactone? Which patients should be referred for renal denervation? Should referrals be based on severity of HTN, patient preference, or both?
- 3. The 2017 ACC/AHA HTN guidelines recommend relatively similar BP treatment goals across multiple comorbidities. However, these guidelines do not directly align with disease-specific society recommendations for common comorbidities, such as those from the American Diabetes Association for T2D or KDIGO for CKD. How should we best communicate these discrepancies to non-specialists? Are there specific types of discrepancies, such as BP targets/drug class, that should be highlighted?
- 4. With the inclusion of additional goal-directed medical therapies such as SGLT inhibitors and non-steroidal MRAs for patients with diabetes or CKD, should more effort be focused on testing their direct effects on blood pressure? Should these therapies be incorporated into HTN recommendations? Is it time to consider moving away from ACE inhibitors, calcium channel blockers, and diuretics as first-line BP agents?
- 5. With the FDA's approval of potassium chloride (labelled as potassium-enriched salt), how real is the concern about hyperkalemia and sudden death from dietary sources among adults with chronic kidney disease or those taking potassium-raising medications? Can the argument of tradeoffs be justified, where the number of cardiovascular disease-related deaths averted outweigh the number of deaths from hyperkalemia, particularly in individuals with diabetes or CKD?
- 6. What possible solutions can the ACC develop to address the issues discussed during this session (e.g., mobile/online tools, education sessions, patient, or clinician resource materials)? Would a registry for patients with resistant HTN be useful, especially for those who would qualify and/or receive renal denervation?



Group 4:

Moderator: E. Yang

Group Members: D. Dixon; J. Flack; Y. Hong; B. McDowell; S. Sloane; F. Wyss; B. Zuckerman

ACC Staff: K. Byrd; A. Crowe

Discussion Questions:

- 2. What is the appropriate first step for managing uncontrolled HTN despite the use of three medications? Given concerns about cost and increasing complexity in treatment, is there a place for new and emerging pharmaceutical therapies? Will newer drugs for resistant HTN eventually replace spironolactone? Which patients should be referred for renal denervation? Should referrals be based on severity of HTN, patient preference, or both?
- 3. The 2017 ACC/AHA HTN guidelines recommend relatively similar BP treatment goals across multiple comorbidities. However, these guidelines do not directly align with disease-specific society recommendations for common comorbidities, such as those from the American Diabetes Association for T2D or KDIGO for CKD. How should we best communicate these discrepancies to non-specialists? Are there specific types of discrepancies, such as BP targets/drug class, that should be highlighted?
- 4. With the inclusion of additional goal-directed medical therapies such as SGLT inhibitors and non-steroidal MRAs for patients with diabetes or CKD, should more effort be focused on testing their direct effects on blood pressure? Should these therapies be incorporated into HTN recommendations? Is it time to consider moving away from ACE inhibitors, calcium channel blockers, and diuretics as first-line BP agents?
- 5. With the FDA's approval of potassium chloride (labelled as potassium-enriched salt), how real is the concern about hyperkalemia and sudden death from dietary sources among adults with chronic kidney disease or those taking potassium-raising medications? Can the argument of tradeoffs be justified, where the number of cardiovascular disease-related deaths averted outweigh the number of deaths from hyperkalemia, particularly in individuals with diabetes or CKD?
- 6. What possible solutions can the ACC develop to address the issues discussed during this session (e.g., mobile/online tools, education sessions, patient, or clinician resource materials)? Would a registry for patients with resistant HTN be useful, especially for those who would qualify and/or receive renal denervation?



Group 5:

Moderator: D. Kandzari

Group Members: T. Chang; Y. Commodore-Mensah D. Hettrick; A. Hinderliter; R. Kreutz; J. Lehman

Cluett; A. Smith

ACC Staff: A. Covington

Discussion Questions:

- 2. What is the appropriate first step for managing uncontrolled HTN despite the use of three medications? Given concerns about cost and increasing complexity in treatment, is there a place for new and emerging pharmaceutical therapies? Will newer drugs for resistant HTN eventually replace spironolactone? Which patients should be referred for renal denervation? Should referrals be based on severity of HTN, patient preference, or both?
- 3. The 2017 ACC/AHA HTN guidelines recommend relatively similar BP treatment goals across multiple comorbidities. However, these guidelines do not directly align with disease-specific society recommendations for common comorbidities, such as those from the American Diabetes Association for T2D or KDIGO for CKD. How should we best communicate these discrepancies to non-specialists? Are there specific types of discrepancies, such as BP targets/drug class, that should be highlighted?
- 4. With the inclusion of additional goal-directed medical therapies such as SGLT inhibitors and non-steroidal MRAs for patients with diabetes or CKD, should more effort be focused on testing their direct effects on blood pressure? Should these therapies be incorporated into HTN recommendations? Is it time to consider moving away from ACE inhibitors, calcium channel blockers, and diuretics as first-line BP agents?
- 5. With the FDA's approval of potassium chloride (labelled as potassium-enriched salt), how real is the concern about hyperkalemia and sudden death from dietary sources among adults with chronic kidney disease or those taking potassium-raising medications? Can the argument of tradeoffs be justified, where the number of cardiovascular disease-related deaths averted outweigh the number of deaths from hyperkalemia, particularly in individuals with diabetes or CKD?
- 6. What possible solutions can the ACC develop to address the issues discussed during this session (e.g., mobile/online tools, education sessions, patient, or clinician resource materials)? Would a registry for patients with resistant HTN be useful, especially for those who would qualify and/or receive renal denervation?



Group 6:

Moderators: V. Bhalla; S. Juraschek

Group Members: B. Abuhalimeh; K. Bates; J. Reilly; J. Saseen; H. Wall; B. Williams

ACC Staff: S. Chavez

Discussion Questions:

- 2. What is the appropriate first step for managing uncontrolled HTN despite the use of three medications? Given concerns about cost and increasing complexity in treatment, is there a place for new and emerging pharmaceutical therapies? Will newer drugs for resistant HTN eventually replace spironolactone? Which patients should be referred for renal denervation? Should referrals be based on severity of HTN, patient preference, or both?
- 3. The 2017 ACC/AHA HTN guidelines recommend relatively similar BP treatment goals across multiple comorbidities. However, these guidelines do not directly align with disease-specific society recommendations for common comorbidities, such as those from the American Diabetes Association for T2D or KDIGO for CKD. How should we best communicate these discrepancies to non-specialists? Are there specific types of discrepancies, such as BP targets/drug class, that should be highlighted?
- 4. With the inclusion of additional goal-directed medical therapies such as SGLT inhibitors and non-steroidal MRAs for patients with diabetes or CKD, should more effort be focused on testing their direct effects on blood pressure? Should these therapies be incorporated into HTN recommendations? Is it time to consider moving away from ACE inhibitors, calcium channel blockers, and diuretics as first-line BP agents?
- 5. With the FDA's approval of potassium chloride (labelled as potassium-enriched salt), how real is the concern about hyperkalemia and sudden death from dietary sources among adults with chronic kidney disease or those taking potassium-raising medications? Can the argument of tradeoffs be justified, where the number of cardiovascular disease-related deaths averted outweigh the number of deaths from hyperkalemia, particularly in individuals with diabetes or CKD?
- 6. What possible solutions can the ACC develop to address the issues discussed during this session (e.g., mobile/online tools, education sessions, patient, or clinician resource materials)? Would a registry for patients with resistant HTN be useful, especially for those who would qualify and/or receive renal denervation?