How were step-up drugs selected and used in ALLHAT?
ALLHAT Step-up Drugs: General Considerations

• Avoided drugs of blinded first-step classes (unless compelling indications), so as not to confound first step-comparisons

• Drugs provided by study all had different mechanisms than first-step drugs, i.e. 3 antiadrenergics, 1 direct vasodilator

• Other drugs at investigators’ discretion, not paid for by ALLHAT
ALLHAT Step-up Drugs: Patterns of Use by Arm at One Year*

*Refers to addition of step-up drugs to blinded drugs
ALLHAT Step-up Drugs: Patterns of Use by Arm at Three Years*

*Refers to addition of step-up drugs to blinded drugs
ALLHAT Step-up Drugs: Patterns of Use by Arm at Five Years*

*Refers to addition of step-up drugs to blinded drugs
ALLHAT Step-up/Open-Label Drugs: Number Used by Arm at One Year

Participants Assigned to Treatment Arm

Participants Taking Step 1 Drug

% taking step-up and/or open-label drugs

C: 1 SUD
C: 2 SUD
C: 3+ SUD
A: 1 SUD
A: 2 SUD
A: 3+ SUD
L: 1 SUD
L: 2 SUD
L: 3+ SUD

SUD = step-up or open-label drugs
ALLHAT Step-up/Open-Label Drugs: Number Used by Arm at Three Years

<table>
<thead>
<tr>
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<th>Participants Taking Step 1 Drug</th>
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SUD=step-up or open-label drugs
ALLHAT Step-up/Open-Label Drugs: Number Used by Arm at Five Years

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Participants Taking Step 1 Drug

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SUD = step-up or open-label drugs
Open-Label Therapy: Patterns of Use by Arm at One Year by Participants Taking Step 1 Drug

Of those taking blinded drug, % on OL therapy

*Other OLT refers to meds other than the step 1 classes or the step 2-3 drugs
Open-Label Therapy: Patterns of Use by Arm at Three Years by Participants Taking Step 1 Drug

Of those taking blinded drug, % on OL therapy

*Other OLT refers to meds other than the step 1 classes or the step 2-3 drugs
Open-Label Therapy: Patterns of Use by Arm at Five Years by Participants Taking Step 1 Drug

*Other OLT refers to meds other than the step 1 classes or the step 2-3 drugs
Conclusions

• Although distribution of specific add-on drugs was generally similar across randomized groups, more drugs were consistently added in the lisinopril group.

• The greater use of add-on drugs, especially clonidine and hydralazine, may reflect the lesser blood pressure lowering of lisinopril (in the absence of a diuretic or CCB).
Conclusions (continued)

• The greater use of open-label diuretics in the amlodipine and lisinopril groups may have led to underestimating the outcome differences between the groups.

• Given the lesser need for adding drugs to diuretics for BP lowering, and in the absence of advantages for CVD or renal outcomes for ACE-I, ALLHAT results suggest little justification for ACE-I to be preferred over diuretics as initial therapy.