

Table S1. Go- and No-Go progression criteria

	Go – Proceed with RCT	Amend – Proceed with changes	Stop – Do not proceed unless changes are possible
1. Feasibility of participant recruitment			
Can ≥ 74 participants be recruited to take part in the study?	≥ 74 participants	≥ 65 participants	< 61 participants
2. Feasibility of participant retention			
Can ≥ 59 participants be retained in the study until completion?	≥ 59 retained	≥ 50 retained	< 40 retained
3. Usability of ‘AsthmaMD’			
Will the app receive a mean SUS score > 68 ?	SUS > 68	SUS ≥ 63	SUS < 52
<i>and</i>	<i>and</i>	<i>and</i>	<i>and</i>
Interpretation of qualitative data relating to usability	App judged highly usable	App judged usable	App judged possibly usable
4. Acceptability of ‘AsthmaMD’			
Will the app receive a mean score ≥ 5 for overall user satisfaction?	≥ 5 overall satisfaction	≥ 4 overall satisfaction	< 4 overall satisfaction
<i>or</i>	<i>or</i>	<i>or</i>	<i>or</i>
Will $\geq 30\%$ of participants agree to 3/5 acceptability-related questions?	$\geq 30\%$ agree to 3/5 questions	$\geq 30\%$ agree to 2/5 questions	$< 30\%$ agree to $< 2/5$ questions
<i>and</i>	<i>and</i>	<i>and</i>	<i>and</i>
Interpretation of qualitative data relating to acceptability	App judged highly acceptable	App judged acceptable	App judged possibly acceptable
5. Feasibility of ‘AsthmaMD’			
Did $\geq 30\%$ of participants use the app ≥ 1 day per week?	$\geq 30\%$ used app ≥ 1 day/week	$\geq 25\%$ used app ≥ 1 day/week	$< 20\%$ used app < 1 day/week
<i>or</i>	<i>or</i>	<i>or</i>	<i>or</i>
Would $\geq 30\%$ of participants continue to use the app after the study?	$\geq 30\%$ continue to use app	$\geq 25\%$ continue to use app	$< 20\%$ continue to use app
<i>And</i>	<i>And</i>	<i>and</i>	<i>and</i>
Interpretation of qualitative data relating to feasibility	App judged highly feasible	App judged feasible	App judged possibly feasible