# Echo Classification Dataset with 47 Classes

Total Views: 47

| Apical Views | | |
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| Image Example | View Name | Description |
|  | a2ch-full | Apical 2-chamber, covering the depth of the whole of the LV and LA |
|  | a2ch-la | Apical 2-chamber that  EITHER has Doppler around the MV or LA,  OR is plain 2d but not covering the whole depth of the LV |
|  | a2ch-lv | Apical 2-chamber, covering the whole depth of the LV, but not the whole depth of the LA |
|  | a3ch-full | Apical 3-chamber, covering the whole depth of the LV and the LA |
|  | a3ch-la | Apical 3-chamber, that  EITHER has Doppler around the MV or LA,  OR is plain 2d but not covering the whole depth of the LV |
|  | a3ch-lv | Apical 3-chamber, covering the whole depth of the LV but not the whole depth of the LA |
|  | a3ch-outflow | Apical 3-chamber, with  EITHER colour that is more looking at LVOT than the MV OR b&w but limited to the LVOT area  NEED BETTER IMAGE image replaced |
|  | a4ch-full | Apical 4-chamber. Needs to show the full depth of all 4 chambers and not deliberately focussing on LV or RV. |
|  | a4ch-ias | Apical 4-chamber, focused on inter-atrial septum |
|  | a4ch-la | Apical 4-chamber, that  EITHER has Doppler around the MV or LA,  OR is plain 2d but covering the whole depth of LA and not whole depth of the LV |
|  | a4ch-lv | Apical 4-chamber, covering the whole depth of the LV and not the whole depth of the LA |
|  | a4ch-ra | Apical 4-chamber, focused on the right atrium, or with colour doppler on the Tricuspid valve or Right Atrium |
|  | a4ch-rv | Apical 4-chamber, focused on the right ventricle |
|  | a5ch-full | Apical 5-chamber, with depth covering from apex of the heart to the back of the atria, AND with no colour on the LVOT |
|  | a5ch-outflow | Apical 5-chamber including the LVOT but  EITHER not covering the full depth from apex of the heart to the back of the atria, OR with colour on the LVOT |
|  | apex | Any apical window, whose depth is not sufficient to reach the mitral ring. |

| Doppler Views | | |
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| Image Example | View Name | Description |
|  | doppler-ao | Spectral Doppler of the descending aorta |
|  | doppler-av | Spectral Doppler of the aortic valve |
|  | doppler-mv | Spectral Doppler of the mitral valve |
|  | doppler-pv | Spectral Doppler of the pulmonary valve |
|  | doppler-tissue-lateral | Tissue Doppler of the left ventricular lateral wall |
|  | doppler-tissue-rv | Tissue Doppler of the right ventricular free wall |
|  | doppler-tissue-septal | Tissue Doppler of the left ventricular septal wall |
|  | doppler-tv | Spectral Doppler of the tricuspid valve |

| PLAX Views | | |
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| Image Example | View Name | Description |
|  | Plax-full-la | Parasternal long-axis, with the imaging sector covering the whole left atrium, and seeming to be intended for measurements on the left atrium.  CHANGE PICTURE PLEASE  Picture changed |
|  | plax-full-lv | Parasternal long-axis, with the imaging sector covering the LV but not the whole LA |
|  | plax-full-mv | Parasternal long-axis, centered on the mitral valve. This is signified by  EITHER so much zoom that parts of the LA and LV are lost from view OR colour doppler over the Mitral Valve |
|  | plax-full-out | Parasternal long-axis, zoomed out |
|  | plax-full-rv-ao | Parasternal long-axis, where  EITHER the image has been zoomed or otherwise positioned to focus on the right ventricle and aorta OR there is colour doppler in the region of the RV, aortic valve, or aorta |
|  | plax-tv | Parasternal inflow view including tricuspid valve |
|  | plax-valves-av | Parasternal long-axis, focussed on the aortic valve. |
|  | plax-valves-mv | Parasternal long-axis, focused on the mitral valve |

| PSAX Views | | |
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| Image Example | View Name | Description |
|  | Psax-all  1 | Parasternal short-axis, valve level, with the field of view covering the positions of the tricuspid, aortic and pulmonary valves (even if they are not clearly seen) |
|  | Psax-tv  2 | Parasternal short-axis, focused on tricuspid valve |
|  | Psax-av  3 | Parasternal short-axis, with field of view focused on aortic valve |
|  | Psax-pv  4 | Parasternal short-axis, focused on pulmonary valve |
|  | Psax-lv-base  5 | Parasternal short-axis, left ventricle base level |
|  | Psax-lv-mid  6 | Parasternal short-axis, left ventricle mid-level |
|  | Psax-lv-apex  7 | Parasternal short-axis, left ventricle apex level |

| M-mode Views | | |
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| Image Example | View Name | Description |
|  | mmode-a4ch-rv | M-mode for measuring TAPSE |
|  | mmode-ivc | M-mode of the inferior vena cava |
|  | mmode-plax-av | M-mode of the aortic valve in the parasternal long-axis |
|  | mmode-plax-lv | M-mode in the parasternal long-axis where the focus seems to be on the left ventricular walls |
|  | mmode-plax-mitral | M-mode in the parasternal long-axis, where the focus seems to be on the mitral valve |

| Subcostal and Suprasternal Views | | |
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| Image Example | View Name | Description |
|  | subcostal-heart | Subcostal window, focused on the heart |
|  | subcostal-ivc | Subcostal window, focused on the inferior vena canva |
|  | suprasternal | Suprasternal view |

# View Granularity

| High granularity to low Granularity | | |
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| Level 1 (47) | Level 2 (21 classes, clinical impact - auto measurements) | Level 3 (7 Classes) |
| 47 independent views | a2ch: a2ch-la, a2ch-lv, a2ch-ful,  a3ch: a3ch-lv, a3ch-la, a3ch-full, a3ch-outflow  a4ch: a4ch-lv, a4ch-la, a4ch-full, a4ch-ias, a4ch-rv, a4ch-ra  a5ch: a5ch-full, a5ch-outflow  apex: apex  plax: plax-full-out, plax-full-lv, plax-full-la, plax-full-rv-ao,  plax-full-mv, plax-valves-av, plax-valves-mv, plax-tv  psax: psax-all, psax-av, psax-tv, psax-pv,  psax-lv-base, psax-lv-mid, psax-lv-apex  sub: subcostal-heart, subcostal-ivc  suprasternal  mmode-a4ch  mmode-a4ch-rv  mmode-ivc  mmode-plax: mmode-plax-mitral, mmode-plax-lv  doppler-ao-descending  doppler-tissue-lateral  doppler-mv  doppler-av  doppler-tissue-septal  doppler-pv  doppler-tissue-rv  doppler-tv | apical: a2ch-la, a2ch-lv, a2ch-full, apex,  a3ch-lv, a3ch-la, a3ch-full, a3ch-outflow,  a4ch-lv, a4ch-la, a4ch-full, a4ch-ias, a4ch-rv, a4ch-ra,  a5ch-full, a5ch-outflow  plax: plax-full-out, plax-full-lv, plax-full-la, plax-full-rv-ao,  plax-full-mv, plax-valves-av, plax-valves-mv, plax-tv  psax: psax-all, psax-av, psax-tv, psax-pv,  psax-lv-base, psax-lv-mid, psax-lv-apex  sub: subcostal-heart, subcostal-ivc  sup: suprasternal  mmode: mmode-a4ch-rv, mmode-ivc, mmode-plax-mitral, mmode-plax-av, mmode-plax-lv  doppler: doppler-ao-descending, doppler-tissue-lateral, doppler-mv, doppler-av,doppler-tissue-septal, doppler-pv, doppler-tissue-rv, doppler-tv |
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