Process Improvement Methods Comparison

	Model for Improvement	Lean	Six Sigma
Primary Goal	Improving outcomes.	Remove Waste and optimise flow.	Reduce defects and variation.
Objective	Demonstrate measurable improvement to a defined aim.	Deliver Value to the customer (patient).	Near perfection in a particular process (zero-errors).
Origins	Developed by Associates for Prccess Improvement (API) and spread widely in healthcare by the Institute for Healthcare Improvement (IHI).	Defined in automotive manufactring as the Toyota Production System. More recently applied to healthcare setting.	Derived from technology manufacturing industry - developed by Motorola in the 1980's.
How improvements are made	Using change concepts to generate change ideas which are tested incrementally and iteratively using the PDSA approach.	Improving flow and shortening cycle time of a process by eliminating (or minimizing) the 8 types of waste.	Reduction in the number of errors through minimizing variation by utilizing data to identify root-causes of errors.
Process	Aim Measures Change Test (PDSA) Implement, Spread	Define Value MapValue Stream Create Flow Establish Pull Pursue Perfection	Define Measure Analyse Improve Control
Measurement & Data	Significant focus on measurement and understanding what represents an imrpvemement. Outcome, Process and Balance measures analysed using SPC charts.	Formed on a basis of qualitative data, rooted in direct observations. The method does not specifically focus on quantifying measures (although, the use of SPC or other chart types is relatively common).	Heavy focus on measurement and data. Applies lots of statistical analysis and techniques of varying complexity.
Adaptability & Scale	* Can be applied at many scales to virtually any scenario, although very large or complex projects may need to be broken down into several components. * Small tests of change (through PDSA), give rapid results and good assurance that changes will be effective when implemented.	*A large range of tools and techniques applicable to many scenarios, although focus is always on improving flow and is therefore not applicble to all projects. *Lean is a way of thinking, rather than a project process, making it applicable to a large range and scale of problems.	*Much of the effort is in the preparation, making it ideal for large or complex improvement projects. *The DMAIC process is linear, with perfection as an end goal - this may work well for some projects (like eliminating medical errors), but it not applicable to all types of project.