What do the Story Points mean?

A story point will be an estimation of the amount of effort that a user story will take to complete.
We will decide on an effort estimation based on these following points:

Complexity

Developers

- Business logic complexity - how well do we understand a story? How complex is the logic flow?
- Code complexity - how complex is the existing code-base (based on the developer's experience and knowledge, for example, they may know that SNOMED, libraries etc. are complex)? how complex would the code logic for the solution be to write?

Testers

- Technical complexity – Are there any technical elements that can be tested and compared with using API/SQL testing? Is there significant specialist knowledge required, to fulfil testing, i.e. Snomed, medical terminology?
- Level of Integration – Does the system fully integrate with other systems and is there a layer of communication between the systems, resulting in knowledge requirement from within that system?

Amount of work

Developers

- How much work would this be and therefore how long might it take?
- How many code changes will there be?

Testers

- How much effort is required in setting up pre-requisite data to fulfil testing?
- How much effort is required in setting up any technical testing elements? Automation decision – Whilst any decision on automation for a project will be made at the inception, on projects where automation has been confirmed, requirements should be story pointed to include any effort to automate.
- Are developers/testers required to gain experience/knowledge of any integrated/3rd party system?
- Amount of testing resource required to fulfil testing, i.e. where a project requires more than one resource?

Risk and uncertainty

- Are the requirements clear? Is the story sprint ready, would we need to add a spike, does it need to be sent back to the Business Analysts?
- Do we know how we would code a solution?
- Are we adding new features or making changes to legacy code?
- Is there reliance on a third party service (e.g. NOD, WPAS)?
- Do we have support contact arrangements for any 3rd party service/applications, e.g. for training requirements and to raise any issues during the development period?

Story Point scales

When we take the above points into consideration, we will measure each on their own scale. Then, the accumulation of those estimates can be used to decide upon the estimation for overall effort.

Complexity

- little complexity
- low complexity

- medium complexity
- high complexity
- very high complexity

Amount of work

- an hour
- half a day
- a day
- a few days
- a week
- a few weeks

Risk and uncertainty

- None
- Low
- Moderate
- High
- severe

Choosing a value for the Story Points

It is important to remember that these number estimates are arbitrary, and they scale in relation to one another.

We will use the Fibonacci sequence as the metric for our Story Point values, as their differences in relation to each other reflect the increments in effort quite well.

Below is a matrix that can be used as a guide for some Story Point estimations based on the points we consider:

Story Point	Complexity	Amount of work	Risk or uncertainty
1	little complexity	an hour	none
2	little complexity	half a day	none
2	little complexity	an hour	high
3	low complexity	a day	low
5	medium complexity	a few days	moderate
8	high complexity	a week	high
8	very high complexity	a few days	moderate
13	very high complexity	a few weeks	severe

There are countless combinations of the factors we consider that will go into our estimations of effort and subsequent choice of Story Point value. This is why we will then negotiate during Scrum poker sessions to discuss developer's reasons for varying values.

Sprint Gate

We have agreed that the maximum effort for a user story that we are comfortable with is a Story Point value of 8.

If we deem a user story to be more effort than 8 story points, it will need to be split up into smaller, lower effort stories before being brought into sprint.

Our maximum limit for story points that we have resource for is 40 story points per sprint. Therefore, in sprint planning, we can use our story point estimations to see how many user stories we can bring into the future sprint. This value may change per sprint based on resource at that point in time too.