Can maths save someone's life?

Maths is used every day all around the world. Whether it is used for something simple or something much bigger, but can it really save a person's life?

Maths plays a part in medicine and how and when it used. Take dosage as an example. If a person is given too much of a certain type of medicine it can result in an overdose however, too little of the same medicine and it won't be as effective. The dosage is determined by statistics which is another part of maths. They take people with similar problems, ages and gender and see how the medicine effects each person. These statistics are taken and used to create the medicine. They also help people understand what person needs what ye of medicine.

During the second world war, Florence Nightingale saved countless lives with her medical knowledge. Did mathematics play a part in this? She also used statistics to help her but these statistics didn't have anything to do with the medicine. She looked at the people who went to get help and determined what she had to do with each person and how different cases related to each other.

A third example of when maths is used to help save people's lives is tomography. This has become one of the most important discoveries in maths. It is about imaging methods in

modern medicine. It all began at the beginning of the 20th century with the x-ray. This is an example of imagery where you are able to see a picture of the bones inside your body. This can determine if a bone is broken or if any further action is need to be made. The official definition of tomography is, "a technique for displaying a representation of a cross section through a human body or other solid object using X-rays or ultrasounds".

My final point is about surgery. In surgeries surgeons need to know what angle they need to do things in. For example, an injection. Angles are a part of maths. They also need to know how likely it is that the surgery will work. This comes back to the idea of statistics which have constantly been proven as a part of maths that can save someone's life.

Surgery is one of the main things that save people's lives and it is obvious (from the reasons above) that maths plays a part in surgeries. When bringing all these points together you can clearly see that maths has played a part in a lot of things that have saved people's lives. In both the past and the present.

Does this mean maths is so important that it can save a person's life?