1 Deputy S.M. Ahier of St. Helier of the Minister for Health and Social Services regarding the integration of Artificial Intelligence into healthcare at the General Hospital: (OQ.161/2019)

Will the Minister advise the Assembly what measures, if any, he is taking to integrate the use of artificial intelligence into healthcare at the General Hospital?

Deputy R.J. Renouf of St. Ouen (The Minister for Health and Social Services):

I thank Deputy Ahier for this question and welcome the opportunity to expand on this topic. Although integrating artificial intelligence represents a huge challenge, it also has the potential to bring huge benefits to not only the health service, but the Island as a whole. A.I. (artificial intelligence) cannot replace humanity, healthcare's most valuable commodity, but it can afford the opportunity to offer an augmented intelligence to the delivery of care. A check and a balance unfettered by human bias and frailties and also provide an avenue to offload tasks which currently reduce the time healthcare professionals spend on human contact. An immersive technology research lab has recently been established in the General Hospital. This has been funded with legacy donations and tasked to research innovative digital health technologies and conduct local clinical trials. The team is currently in the process of setting up a clinical research trial of an A.I. solution to caring for our frail residents in their homes. Hospitalisation itself can have detrimental effects on health and well-being, particularly among our frail elderly. A cost-effective internet of things and A.I. monitoring solution could allow enhanced delivery of care in the home. Care in the community, utilising modern health technologies will be a fundamental part of our future health strategy.

3.1.1 Deputy S.M. Ahier:

The healthcare industry is ready for change. With the advancement of electronic medical records there is a wealth of data. This data can be used to predict key outcomes in operations and clinical care. When will Jersey have its own electronic health record system?

The Deputy of St. Ouen:

That is a large piece of work in progress. It will build up in time, but it will take some years, I am advised, but progress is being made and I acknowledge the support given by Digital Jersey in that and the innovative means and measures being taken to assist the hospital and the whole health service in progressing that project.

3.1.2 Deputy K.F. Morel of St. Lawrence:

While I am aware that Jersey has the legal data protection framework in place, I was wondering whether the Minister could give assurances that no work with regard to artificial intelligence, or any other digital technologies, will go ahead until the States of Jersey can prove that it understands and takes data protection seriously and properly. I say this, being aware of several data protection breaches which have not been reported publicly, but which have occurred in the States of Jersey.

The Deputy of St. Ouen:

I am sure this Assembly will take data protection seriously. It will ensure that any measures taken within the public service are entirely within the law. We must realise that with any innovation comes challenges and it is the solutions to those challenges that define whether that innovation brings benefits. We have the opportunity to engage in developing artificial intelligence and we must be involved in solutions to the challenges it poses.

3.1.3 Deputy K.F. Morel:

Given the importance of people's medical records, the intimate detail that is noted down on there, would the Minister not agree that it is appropriate to adopt a precautionary principle with regard to the adoption of artificial intelligence and other additional technologies when it comes to the use of our medical records and the sharing of those records?

The Deputy of St. Ouen:

Absolutely. Confidentiality must be preserved. I am not entirely sure myself what is involved in a precautionary principle except, I imagine, it must mean that the law must be complied with and people's rights must be protected, which they must be, as artificial intelligence moves forward.

3.1.4 Deputy J.H. Perchard of St. Saviour:

Would the Minister be able to confirm whether the technological group at the hospital are programming their newer networks from scratch, or whether they are buying A.I. templates from developers outside of the Island and adapting them for use in hospital?

The Deputy of St. Ouen:

I do not have sufficient depth of knowledge to confirm that at the moment, I apologise to you, but I will seek out that answer and provide the Deputy with it.

3.1.5 Deputy R. Labey of St. Helier:

I just wonder if the Minister knows how many millions have thus far been spent in vain on computerising the health service and how many more will be required for a successful outcome.

The Deputy of St. Ouen:

Where does one start when one talks about the first initial steps to computerise? I do not know, as a single figure, what has been done perhaps a decade or more past. As to expenditure moving forward, there are proposals being put into the Government Plan about the digital programme. That will all be revealed in due course. It is being worked on and I trust Members will support that proposal when it comes forward in the Government Plan.

3.1.6 Senator S.C. Ferguson:

For the benefit of the public, who are listening, would the Minister like to give a brief explanation of what he understands A.I. to be?

The Deputy of St. Ouen:

I am not a technological whizz kid, but perhaps I can give a practical example, which caught my eye. Let me see the benefits of what it might be. I am thinking of the residents that we house in St. Ouen's Homes for the Elderly; I am thinking of them, but it equally applies to anybody living, who might have healthcare needs. Through simple technology, installed in people's homes, people's heart rates can be monitored, pulse rates, a general state of health, without them having to leave their home and attend appointments. I know that there are particular issues around people falling at home and those falls often occur in the middle of the night when people have slept, they need to get up in the middle of the night, they are unsteady on their feet, they fall. There is a mattress, which monitors pressure and it can be seen if somebody has left their bed, because they are not on the mattress. If they have not returned within a certain time, have they fallen? All that can be monitored centrally. If a kettle is not switched on early in the morning for a morning cup of tea, but that mattress no longer has the pressure on it where is that frail elderly resident? Have they fallen

in the house somewhere? It is not to say there is not an innocent explanation for that sort of thing, but that sort of technology can be used well, I think, to keep people living independently in their own homes.

Senator S.C. Ferguson:

Supplementary, Sir?

The Bailiff:

No, Senator, thank you. Final supplementary, Deputy Ahier.

3.1.7 Deputy S.M. Ahier:

Artificial intelligence, driven by data science, can have a huge benefit to the health industry leading to more accurate diagnosis and decision processes. Will the people of Jersey have to wait for a new hospital to be built before any progress is made in this field?

The Deputy of St. Ouen:

I sincerely hope not. I believe we are making progress and will continue to do so.