

PAPER

Technology for Health

R. FUKUDA, T. IWAIDA. *Service Navigation System (sNs) – A novel nursing care record system. Gerontechnology 2018;17(Suppl):129s*; <https://doi.org/10.4017/gt.2018.17.s.125.00> **Purpose** In Japan, conventional nursing care records are paper-based and consist of various types of documents. As some kinds of information should be transcribed into several documents, records take a long time to complete and this frequently leads to overtime work. Electronic nursing care record systems are expected to avoid such inefficiency¹. No transcription is required and personal devices enable caregivers to keep records anytime and anywhere. Speech input systems even enable data input while doing other tasks. Wirelessly connected devices such as thermometer, blood-pressure monitor, or other sensing devices transfer data automatically. Effective utilization of recorded data would promote improvement of quality of care. For instance, a rich data and user-friendly data analysis module can make an accurate assessment of the care recipient. Based on the result of accurate assessment, a care plan can be properly revised. Recently, the application of artificial intelligence (AI) has started in the revision of care plans or support of handover. Although electronic nursing care record systems have various advantages, most of the current systems in operation do not take enough advantage of electronic systems. One reason may be that they manage conventional data in a manner similar to conventional paper-based systems. An electronic nursing care record system could promote not only looking at the care record retrospectively, but also providing care with proper timing, recording data without fail, and thinking about change in the care recipients' condition prospectively. **Method** We have developed a novel nursing care record system "Service Navigation System" (sNs). sNs has three major functions: (1) nursing care record combined with timeline of daily care plan, (2) support for taking measures in case of an accident, and (3) alert function of important matters. The first one is the greatest feature of sNs. Care services to be provided are indicated as icons in timelines of individual care recipients. When a caregiver has provided a certain nursing care, they click the icon of the care provided and input the related information (e.g., in the case of meal assistance, food and water intake and remarks). Icons of focused care services are highlighted so that caregivers make sure to provide the important care service. In case of an accident, caregivers should look back at the accident and identify the cause in order to avoid future similar accidents. In addition, caregivers should pay more attention to the care recipient involved in the accident for a certain period of time. In such cases, the timeline of that care recipient is highlighted to promote their monitoring. The accident report sheet indicates all the required measures and aggregates the related data. If a measure is delayed, sNs alerts caregivers by a message on the opening screen. Another alert function informs, for example, noticeable weight decrease. By monthly checks of weight, a slow decrease is hard to find. Based on diagnostic criteria for malnutrition, sNs make caregivers aware of weight decrease and the risk of malnutrition. All these functions promote provision of proper care with proper timing. **Results & Discussion** sNs has been introduced in approximately 180 out of 313 of our nursing homes. Various effects have already been observed in those homes. Most obvious is a reduction in time for information handling and sharing. The time required for transcription is shortened, as input data is automatically distributed over several documents. The time required for handover is also shortened. All the data is accessible by using a PC or personal mobile device so that only important information has to be shared in the handover meeting. For that, and through that, it is expected to develop caregivers' ability to determine such important information. Delay in provision of care or taking measure in case of an accident is tended to be decreased. In addition, awareness of focused care services is increased. Even if a new service is introduced, all the caregivers are informed about it by sNs and provide the new service without fail. We are going to observe the further effects of sNs on efficiency and quality in the provision of nursing care services, hoping sNs will serve as an effective human resource development tool.

References

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