*Hsu Y-L [徐業良]. Welcome to ISG 2014 in Taiwan. Journal of Gerontechnology and Service Management 2014;2(1):1-2*; doi:10.6283/JOCSG.2014.2.1.01 It is our great pleasure to welcome you to the 9th World Conference of the International Society for Gerontechnology, ISG 2014 in Taiwan! The Journal of Gerontechnology and Service Management will collect full papers presented in ISG 2014 (in Chinese).
**Keyword**: ISG 2014

*Chien H-J [簡鴻儒]. Developing a Service Connection Device (SCD) for the elderly in Taiwan. Journal of Gerontechnology and Service Management 2014;2(1)*:3-16; doi:10.6283/JOCSG.2013.2.1.3 One-page paper at ISG2014; doi:10.4017/gt.2014.13.02.073.00

*Lee Y-H [李雅慧], Lu C-Y [盧婧宜]. The exploration of middle-aged and older adults' future preparation: Learning perspectives. Journal of Gerontechnology and Service Management 2014;2(1):17-26*; doi:10.6283/JOCSG.2013.2.1.17 One-page paper at ISG2014; doi:10.4017/gt.2014.13.02.207.00

*Tuan P-C [段伴虬], Chen T-C [陳聰堅], Shih Y-F [石雅芬], Hsieh M-H [謝敏惠], Wu J-Y [吳瑞耀]. A service* design of a user-based tele-healthcare system for seniors. *Journal of Gerontechnology and Service Management 2014;2(1):27-*38; doi:10.6283/JOCSG.2013.2.1.27 One-page paper at ISG2014; doi:10.4017/gt.2014.13.02.046.00

*G. Huang [黃國桂]. Willingness of Chinese college students to participate in time bank. Journal of Gerontechnology and Service Management 2014;2(1):39-48;* doi:10.6283/JOCSG.2013.2.1.39 One-page paper at ISG2014; doi:10.4017/gt.2014.13.02.132.00

*Chen G [陳冠華], Lin S [林樹強], Yu C [游志雲], Huang Y [黃耀新], Mufidah I. Key indicator analysis of a work improvement program for middle-aged workers in Taiwan's metal industry. Journal of Gerontechnology and Service Management 2014;2(1):49-62*; doi:10.6283/JOCSG.2013.2.1.49
**Purpose**: The purpose of this paper is to analyse and enhance the work improvement program in Taiwan's Metal Industry. Two plants' work conditions and facilities were investigated and improved. It was found that many of the workers are middle-aged men who occupy high risk jobs. Therefore, there is a strong need to improve the work environment to prevent the occurrence of occupational injuries. **Method:** Key Indicator Method (KIM) is a consistent method used to assess risk involvement in manual material loading. It is conducted by quantifying the key indicators individually (time, load, posture and working conditions using rating points) and calculating the risk score and risk range. At Plant 1, observed areas were coil coating, coil packaging, and chemical storage area. The areas observed in Plant 2 were iron cutting, iron scrap, H-type iron conveyor operation, and iron burr trimming area. According to KIM, coil coating area time rating point was 6 before improvement, since lifting/positioning occurs fewer than 500 times per day. The load rating point was 2, since the load was less than 20 kg. The posture rating was 4, since the torso is bent slightly and there is high load on the shoulder. The working condition rating point score was 0, since the working condition is good. Therefore, the risk score is 36, the load status is "increased", and the risk range is 3. Based on the observational results, an improvement plan was designed and implemented to fit the middle-aged workers in the facilities. The rating points were re-assessed afterwards to examine the improvement effectiveness. **Results & Discussion:** The work facilities designed and implemented at Plant 1 are: an additional rotating arm bracket for the coil coating area; height adjustments for pallets, to 80 cm; height adjustment for sleepers' bottom, to 50 cm; adjustable seat hights and movable brackets for the coil packaging area; and, a lift cart and stairs for the chemical area. All the equipment was designed with a limited budget and timeframe to support ease of use for middle-aged workers. Before the improvements, the risk score ranged between a "medium" load of 16 and “increased” load of 40; after the enhanced improvement program, the range of risk score was reduced to 4 ("low" load) to as high as 36 ("increased" load). In summary, with the analysis of KIM, the enhanced improvement program can reduce the risk score in the areas investigated in the metal plants.
**Keywords**: occupational health and safety, middle aged workers, Key Indicator Method

*Chen Y-C [陳妍榛], Chen W-C [陳韋臻], Chang M-L [張敏玲], Tsai P-L [蔡碧藍]. Creating a Comfortable and Safe Oral Environment -- Development of an* Innovative *Oral Bite Block*. *Journal of Gerontechnology and Service Management 2014;2(1):63-70*; doi:10.6283/JOCSG.2013.2.1.63 Oral hygiene is crucial for patients with ventilators. Clinically, the oral bite was designed to prevent patient biting their endotracheal tube and leading to airway block. Inappropriate placement of foreign objects (e.g oral bite block) in the patient's oral cavity may cause oropharyngeal dysfunction and increase the risk of developing ventilator used related pneumonia. Moreover, misplacement of an oral bite block may not only result in oral mucosal damage and tissue necrosis, but also increase difficulty for nurses to perform oral care for those patients. This study aimed to design an innovative oral bite block for appropriate use. Three types of oral bite blocks were compared in their size, diameters, convenience, and side effects. As a result, the texture of the three oral bite blocks are either very hard, easily causing oral bleeding and ulceration, or spit-out from some patients. Large size oral bite block is also undesirable. The innovative device is created based on the goal of providing better comfort, decreasing possibility of oral bleeding and ulceration, and shortening time of care. Further clinical trial and the approval from the Department of Health will be performed, so more patients could be benefited.
**Keywords**: oral hygiene, oral bite block, innovation

*Liu G-Y [劉冠佑], Chen P-W [陳培文], Wu S-S [吳錫修], Wu H-Y [吳信義]. Design of rehabilitation system based on constraint-induced movement therapy. Journal of Gerontechnology and Service Management 2014;2(1):71-82*; doi:10.6283/JOCSG.2013.2.1.71 Hemiplegia is the most common disability in stroke. Hemiplegia caused the limit of functional activities of daily living for the patients. Therefore, they unable to live independently and need to rely on others to help. The patients need to receive rehabilitation treatment in order to restore the function of independent life. Many studies have found that more than one year in patients whose stroke rehabilitation of limb function presents "learned non-use" phenomenon. Negative feedback due to the use of the affected limb while engaged in activities results in suppressing the behavior of the affected limb. Therefore, the functional recovery of the affected limb is limited. The method of constraint-induced movement therapy has been developed for stroke rehabilitation to overcome the "learned non-use" effect of the hemiplegic limb. In this study, the concept of limit contralateral limb mechanism is implemented in the design of rehabilitation system to help patients overcome the "learned non-use" effect of hemiplegic limb.
**Keywords**: hemiplegia, rehabilitation, learned non-use, constraint-induced movement

*Hsu Y-L [徐業良]. Gerontechnology industry – Challenges and opportunities. Journal of Gerontechnology and Service Management 2014;2(1):83-90*; doi:10.6283/JOCSG.2013.2.1.83
Gerontechnology represents an important opportunity for industry, facing the aged society in the future. On the other hand, gerontechnology research is only valuable if the research reults can be realized into products or services that benefit older persons and their caregivers. This paper first describes the background and scope of gerontechnology. Then it presents the challenge of gerontechnology, how to make the transition from "professional system" to "consumer products", find the internal motivation of the users, and develop a sustainable business model. Finally this paper presents several possible directions for gerontechnology developments in industry, using "intelligent system" as the keyword.
**Keywords:** gerontechnology industry, business model, internal motivation, intelligent system

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