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The internet has throughly changed the everyday routine of critical care medicine service.

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There is discussed an issue of transferring work of the Critical Care Medicine Service on automatic regime. As a model of work we have taken the clinic of Georgian Institute of Critical Care Medicine which cures more than 1000 patients of critical condition and includes services of critical medicine, general surgery, neurosurgery, therapy, extracorporeal detoxication, anesthesiology, diagnostics and others. Working process is divided into several spheres: monitoring of patients' vital functions (pulse, arterial pressure, saturation, frequency of breathe, body temperature, central nervous pressure and etc) visual control's system of a patient's image; informational system of a patient's condition, automatic system of making medical documents , electronic version of medical standards and protocols, and bookkeeping documents' electronic version. The basis of their union is Internet sphere. Consequently the work of medical staff has been significantly simplified and, quality of medical service and control of treatment process have been enhanced, besides amount of workers in critical care medicine and treatment expanses have been reduced.

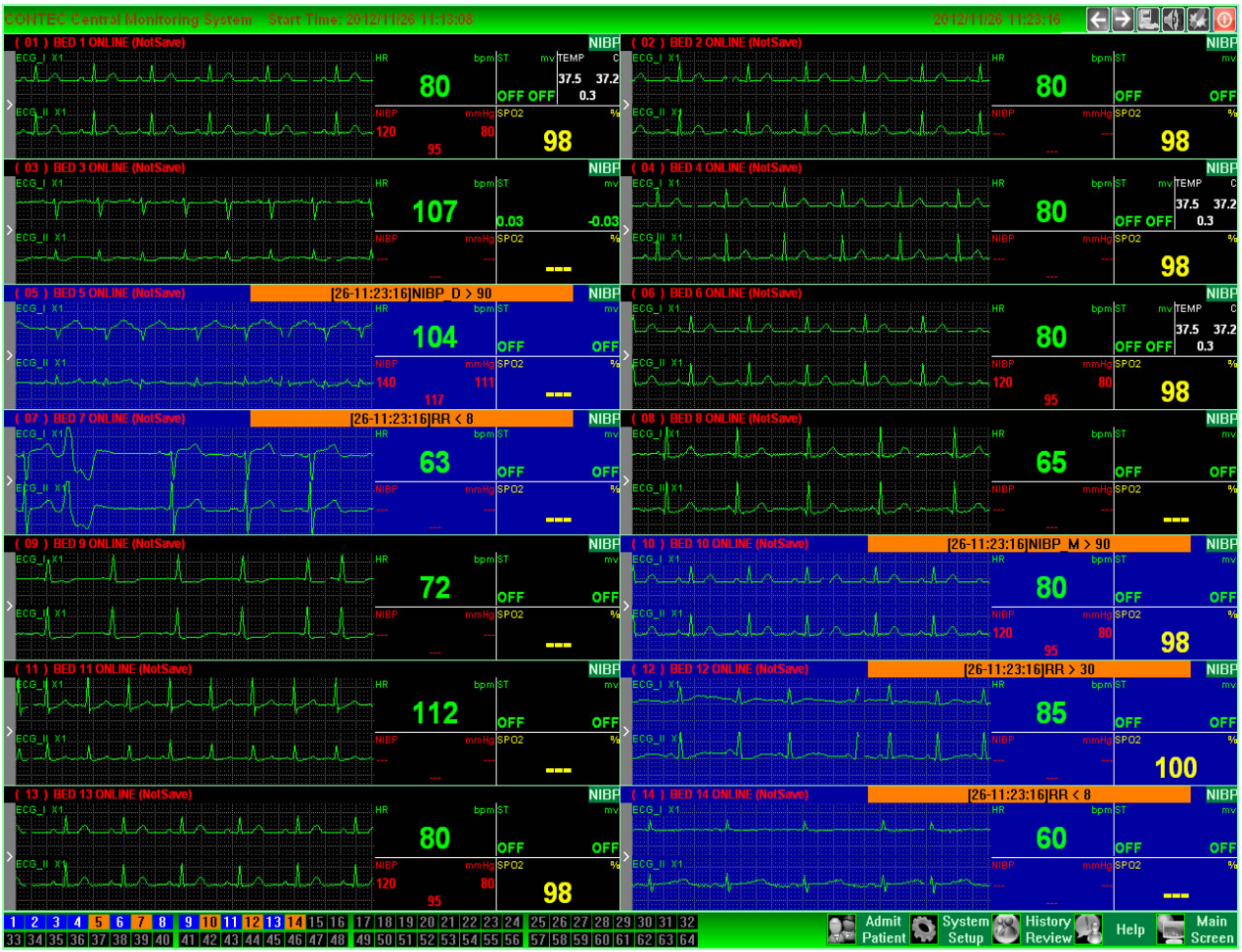
Key Wortds: Critical care ,The Internet, Service.

Intraduction: The medical staff of critical care medicine has to implement a very hard and strenuous work as an everyday routine. Moreover, frequently it is necessary to make a fast decision in a process of treating of a patient and made mistake can be fatal for a patient. Additionally, sometimes thinking and acting must happen simultaneously and in other case a patient will not survive. This process is significantly facilitated by an automatized system of working, these kind of systems make easier for medical staff to work. In addition if we consider that this work is hard physically and psychologically; it also increases the quality of medical service and possibility to control a process of treatment. This type of approach decreases an amount of workers in critical care medicine service and preserves expenses of treatment. From this point of view it is important to provide patients' owners with an information about condition. In order to receive this information they need a lot of time and a doctor spends some valuable time too and it would be better if this time is used for patients. It is important that solve of this problem can be managed by means of utilizing automatized systems in working process. Unfortunately these systems are expensive and their exploitation is difficult, but these problems might be significantly reduced if their basis will be the internet. In other words, the internet can considerably change an everyday routine of critical care medicine service. It should be noted that these works were firstly began in Georgian Institute of Critical Care Medicine and nowadays it owns the biggest experience.

Materials and methods: As a basis of the work we took the clinic of Georgian Critical Care Medicine that is located on 20 critical medicine,10- pre- and post-reanimation period treatment of patient. In clinic there are the following services: critical care medicine, general surgery, neurosurgery, therapy, extracorporeal detoxication, anesthesiology, diagnostic and so on. The clinic cures about 1000 critical patients in a year including foreign patients majority of which is transferred from country's different regions and neighbor states; the majority of patients are old people, they are of the different profiles but mostly occurs critical conditions associated with acute blood circulation disorder in brain.

Results and discussion: Converting an everyday work of critical care medicine service by means of the internet includes various spheres; the first sphere is a monitoring of patients vital functions (pulse, arterial pressure, saturation, frequency of breathe, body's temperature, central venous pressure and others). This is carried out thanks to so-called "bed" cardio-monitors which are plugged in the Internet web. By means of this, a constant control of patients' vital functions is provided.

Picture 1



The next sphere is represented as visual control of a patient's image. This system is created by video cameras which are plugged in the Internet web and attached on each bed similarly to the registration monitors of vital functions. These video cameras are in operation rooms, corners, laboratories, working places, hall, and other places of clinic that helps to control a working process apart from a patient's superficial picture. It is important that received information by vital functions' monitors and video cameras happen in real time and recovery of them is possible in case of necessity.

Picture 2

The third sphere of these kind of systems include the informational system of patients' condition basis of which is also the Internet. By means of the Internets there happens representing of patients' condition during a day for several times. This information is a good way for patients' owners to know a condition of them without coming to the clinic by means of video-image.

Picture 3

Data of patients' condition of the Georgian Critical Care Medicine Institute

№	Admission date	Assessment time	Diagnosis	Severity of the condition	Condition of vital functions					Anticipated Period of treatment, days	Forecast	Outcome
					Breathing	Blood circulation	Consciousness	Nutrition	Urinary excretion			
				Severe, very severe	Self, artificial	Stable, suppressed	Clear, blurred, unconscious	Self, artificial	Through catheter		Promising, doubtful	Survived, passed away
				Severe	Artificial	Unstable	Unconscious	Through pathfinder	Catheter	21 days	Doubtful	Died
				Severe	Self	Stable	Blurred	Self	Catheter	21 days	Doubtful	Discharged
				Severe	Self	Stable	Blurred	Through pathfinder	Catheter	21 days	Doubtful	Discharged

The fourth system is represented as a making medical documents by means of automatic system, which includes easier way to produce a history of patient without any trouble: this helps medical personal to loose less time and collaborate necessary information in a little amount of time. In addition to that these data are saved in electronic archives and this information is available anytime, by means of the Internet too.

The fifth sphere of these systems contain treatments standards and protocols which electronic version is represented as 35 standards of critical condition's treatment, which is complied with several directions or blocks, and in each block there are mentioned actions of medical staff by hours from entering a patient into a clinic and before discharging from clinic.

The sixth sphere is an electronic version of producing bookkeeping documents that also includes elaborating statistic data by the same principle.

Conclusion: There is elaborated working system in automatic regime for critical care medicine based on utilizing the Internet web, this resulted in an significant improvement of quality of patients' treatment, made easier for medical staff to work, increased control of working process, simplified production of medical documentation. Besides that, this made possible to search an information about a patient anytime in the Internet and alongside with improvement of treatment quality, expanses of treatment were considerably reduced.

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ზ.ხელაძე, ზვ.ხელაძე, ე.ქარცივაძე, ნ.ქაჯაია
ინტერნეტი საფუძვლიანად ცვლის კრიტიკული მედიცინის სამსახურის ყოველდღიურ „რუტინას".
(კრიტიკული მედიცინის ინსტიტუტი, თბილისი, საქართველო)

განხილულია ინტერნეტის ქსელის მეშვეობით კრიტიკული მედიცინის სამსახურის მუშაობის ავტომატურ რეჟიმზე გადაყვანის საკითხი. სამუშაოს მოდელად აღებულია საქართველოს კრიტიკული მედიცინის ინსტიტუტის კლინიკა, რომელიც წელიწადში 1000-მდე კრიტიკულ მდგომარეობაში მყოფ ავადმყოფს მკურნალობს და მოიცავს კრიტიკული მედიცინის, ზოგადი ქირურგიის, ნეიროქირურგიის, თერაპიის, ექსტრაკორპორული დეტოქსიკაციის, ანესთეზიოლოგიის, დიაგნოსტიკის და სხვა სამსახურებს. სამუშაო პროცესი დაყოფილია რამდენიმე სფეროდ: ავადმყოფთა სასიცოცხლო ფუნქციების (პულსი, არტერიული წნევა, სატურაცია, სუნთქვის სიხშირე, სხეულის ტემპერატურა, ცენტრალური ვენური წნევა და სხვა) მონიტორინგი. ავადმყოფის გამოსახულების ვიზუალური კონტროლის სისტემა. ავადმყოფის მდგომარეობის საინფორმაციო სისტემა, სამედიცინო დოკუმენტების მომზადების ავტომატური სისტემა, სამკურნალო სტანდარტებისა და პროტოკოლების ელექტრონული ვერსია და საბუღალტრო დოკუმენტების წარმოების ელექტრონული ვერსია. მათი მუშაობის გაერთიანების საფუძველს კი წარმოადგენს ინტერნეტსფერო. შედეგად მნიშვნელოვნად გაადვილდა სამედიცინო პერსონალის მუშაობა. გაიზარდა სამედიცინო მოსახურების ხარისხი და მკურნალობის პროცესის კონტროლის შესაძლებლობა, გარდა ამისა შემცირდა კრიტიკული მედიცინის სამსახურში მყოფ თანამშრომელთა რაოდენობა და მკურნალობის ხარჯები.