

**Editorial**

**Road Traffic Accidents, Bahrain 2001**

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General hospitals all over the world are dealing on daily basis with injured patients due to accidents at homes, workplaces, schools, sports and recreation centres and on the roads. Towards the end of 2001, people in Bahrain were celebrating the fasting month of Ramadan and its feast, the national day, Christmas and new year. While in the festive mood, many were shocked with several horrifying road traffic accidents (RTA) that took place on different roads around the country. Seeing the pictures on the television, on the front pages of the daily newspapers and reading the details of the accidents was very distressful.

Despite the official effort and legalization in Bahrain, the statistics released by the Directorate of Traffic were alarming. The year 2000 showed 53 deaths and 374 serious injuries from RTA. The year 2001 showed 74 deaths and 426 serious injuries, a rise of 40% and 13% respectively than last year. Fatal road accidents of 2001 in Bahrain was the highest in comparison to any other year of the last decade. The main causes for fatal accidents on the road were; driving at high speed 39%, drunk driving 18%. Seventy four deaths were documented due to RTA, out of these, there were 25 drivers, 20 passengers, 26 pedestrians and 3 cyclists.

Further statistics from the Directorate of Traffic of 2001 showed 126625 registered traffic offenses including 22807 for not wearing the seat belt, 21755 for speeding, 21111 for wrong parking, 14454 for driving through red traffic light, 6982 driving without valid car register, 1497 for driving in the wrong direction, 489 for not having driving licenses, 480 for drunk driving and many for other violations. Recorded accidents with damage to vehicles and to properties were 36431. The number of hit and run accidents which is one of the most uncivilized and inhuman acts were 41. The number of traffic offenses is significant when it comes from a country with a population of about two thirds of a million.

It is possible to look into some of these accidents with the background and personality of the offenders in mind and with the effect on self, families and community:

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- The tragedy of individual accidents.
- Road safety and designs.
- Late evening and weekend drunk drivers.
- Efficiencies of driving schools.
- Young drivers with short driving experience riding powerful re-enforced cars.
- Attitude of some arrogant young drivers and their families.
- Alternative entertainment's to auto-racing and availability of defined areas for car racing.

It was striking to know that Switzerland was able to reduce the traffic fatalities from 1141 in 1980 to 555 in the year 2000. Many reports addressed the speed of different types of vehicles and the regulations for motorways, dual and single carriage roads. The reliability of the statistics declared by the traffic departments seems to be accurate with serious and fatal injuries.

Registration of non-serious injuries and non-road traffic accidents seem to be incomplete and underestimated. It is suggested that investigators could be misinformed if they base their analysis solely on police RTA data. Accurate data should be produced from ambulance registry, hospital records and police data to help policymakers, planners and practitioners<sup>1</sup>. All types of accidents whether major or minor should be appropriately reported, checked for registration and analyzed. Fatalities due to RTA need standardization of the definition. Early fatalities is easily related to the accident. What about death after days, weeks or months? To improve abilities and to exchange experiences with different countries, there is a need for a standardized national and international definition, reporting, analysis and consequences of accidents.

In Bahrain official bodies with representatives from concerned ministries are dealing with and further looking into the problem of traffic violations and accidents. Beside the official response, voluntary efforts are needed to look into the problem and suggest possible solutions. Health care professionals already playing major role in transporting and treating victims of accidents. It is at hand for health care professionals and their societies to make a convincing case and present it to other societies including educationalists, social worker, psychologists, engineers, religious people and economists. Collective effort from volunteers and professional societies will formulate a strong case to modify and support the official bodies in dealing with the problem in short and long terms.

Making a convincing strong case with effective out come, needs a lot of hard work from health care professionals to present the different aspects of the accidents whether on the roads or anywhere else. The outcome may not affect only the accident issue, but it may extend to further improve the pre- and hospital care of the injured patients. All injuries should be well documented and evaluated. Age and personality of the drivers involved in repeated accidents should be assessed. Several reports addressed the effect of social deviance, violation, behavioral characteristics on the incidence of repeated accidents<sup>2,3</sup>. Furthermore, there are psychological consequences on the victims of traffic accidents which may include children adults and their families. The post-traumatic stress disorders

may result in traffic-related fears, mood disturbance and high level of distress<sup>4</sup>. In some patients, the psycho-pathological changes can cause chronic and persistent disabilities<sup>5</sup>. Psychological disabilities have impact on individuals and their families.

In conjunction with the personality of the drivers violating traffic regulation, it is worth elaborating on the impact of alcohol consumption and drug abuse. There is increase risk of road traffic accidents among alcohol consumers and drug abusers<sup>6</sup>.

Beside the socio-psychological impact before and after the accidents, trauma patients are draining a lot of resources allocated for health care. Many patients are seen and treated at the accident/emergency and other specialties for minor and major insult to the bones, soft tissues, brain, and viscera. Those patients drain effort, beds, outpatients and other resources. The statistics of the department of Orthopaedics at Salmaniya Medical Centre of Bahrain for the year 2000 showed the following alarming figures; of the many operative procedures for accident-related injuries there were: 179 internal fixation and hemiarthroplasty for proximal femur fractures, 13 instrumentations of the spine, 204 internal fixation for the upper and 199 for the lower extremities bones. One hundred and forty five patients had repair of, ligaments, tendons and nerves and 85 for hand injuries. Beside consumption of resources, each patient with multiple injuries represents a problem for timing and types of operations and internal fixation of the fractures<sup>7,8</sup>.

Therefore, each injured patient needed assessment at the accident and emergency department, admission to hospital, time of health care professionals, bed utilization and expenses for implants and medicine. Injured patients are occupying beds on the expense of non trauma patients waiting for long time to find a bed in the hospital. Once discharged from hospital, there are more loss of working days due to remaining disability. They need to be followed up in the clinics. Outpatient appointments for non-trauma patients are very much delayed because of the number of trauma patients attending clinics.

Long term plan can not be based entirely on emotions and on response to a period where the number of serious RTA increased. There has to be a complete strategy for care, prevention, documentation and analysis. Safety on the road is important but the concept of safety should extend to include homes, workplaces, schools and sports and recreation centres. Beside the goal for accident prevention, there are areas for further improvements in the care of the injured.

Accidents presented to hospital should be one of the main basis for documentation and clinical research. Many accident and emergency departments in the developing countries are staffed with junior residents and doctors who did not survive other specialties. Furthermore, they are supervised by consultants who are not trained and qualified to be full time accident consultants. It is a common sense for any health care professionals to know that the pre- and early hospital care influence the mortality and morbidity of seriously injured patients.

Pre-hospital care must be simple, smooth and safe with clear unforgettable objectives of giving the priorities to life threatening injuries, avoid further damage, and rapid transport to hospital. In the early hospital care, it is the responsibility of health care professionals towards the seriously injured patient to make without delay accurate diagnosis, immediate necessary treatment and to arrange further specialized care as required. If morbidity is to be reduced and lives to be saved, severely injured patients should receive a high quality care from the very early phase following the accident. Applied clinical research on trauma patients is a must for health care professionals as it would improve the documentation process and future plans.

In conclusion; RTA and all types of accidents represent serious problems to the community. The tragedy of several fatalities and serious accidents that took place on the roads of Bahrain towards the end of 2001 were of great concern to the officials and the public in the country.

Health care professionals must be committed to more positive role in prevention of accidents and further improvement in the care of the injured. Along with volunteers and other professional societies, health care professionals can influence and support the official decisions and legalization.

Formulating a strong convincing case to influence the short and long term plans has to be based on:

- Accurate ongoing recording and evaluation of the data about causes of accidents, patterns of injuries, the care of the injured and the late effect on individuals, families and the community.
- The effect of the accidents on the resources of the country.
- Developing flexible strategy to further improve and introduce concepts of safety to the community and get more resources for the care of the injured patients. Improving community awareness about the need for collective effort and motivation from volunteers, professional societies and official bodies.
- Assessments, rehabilitation and possible re-license should be considered seriously for drivers with repeated violations.
- Reinforced or re-enhanced powerful engines should be only driven by mature drivers. Immature driver using reinforced or re-enhanced car should be considered violation.
- Allocating appropriate slots about safety in the educational curricula of the schools would lead to long term lasting effect.

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