



The Australasian Society for Motorsports Medicine and Rescue

Contents

- Race control
- Clinical review
- Recent race results
- Caught by the cameras



Race control

So 2011 is long started and I'm only now getting around to putting out the first issue of the year. It's been a busy start (new job, first kid starting school, oh, and a bunch of motor sports stuff), so I'm going to use that as my excuse for slacking. If anyone wants to see a portion of what I've been up to, visit www.intensivecarenetwork.com

Formula 1 is off to a cracking start, with Sebastian Vettel establishing early dominance. Is he the next Schumacher (and will he get used to leading from way out in front and also forget how to race amongst the pack when he has to)? One thing seems certain and that is the mixture of technical developments, tyre compounds and regulations determining how everything can be used, along with a bunch of newer drivers keen to make a name for themselves, appears to be contributing to some really exciting racing; which makes a nice change. The WRC is also away and Loeb is also off to his usual solid start. Mikko started well, like last year, but there's still a hint of self-doubt about him. Ogier, Solberg and Latvalla will be strong challengers. It'll be interesting to see how the IRC 2010 champion, Kris Meeke, fares alongside Danni Sordo, in the Minis. Additionally, Australian's Molly Taylor and Brendan Reeves are running alongside the WRC boys in the WRC academy event. And the V8s, MotoGP and other racing categories have also screamed away from the start line of 2011.

As for the ASMMR, the year has started with some additions and plans. There is now an ASMMR Twitter feed (<http://twitter.com/#!/TheASMMR>), for those who like snappy, digital info. There is also a new e-mail address: The.ASMMR@gmail.com I'm working on setting up an ASMMR website soon, as the newsletter is a bit limited in what it can achieve, and is subject to spam filtering. It might take a bit of time, in between all of the other stuff to be done.

In this issue, I've had a crack at doing a "trial", attempting to answer the question, how many

useful motor sport medicine and rescue resources and how many of them can I access for free? Maybe I'm over-reaching a bit, but have a read and see what you think.

Good luck.

Matthew Mac Partlin



Clinical review – A trial

Clinical and rescue resources for land based motorsports – Where to start?

Aim: To determine the quantity and accessibility of clinical and rescue resources that cater specifically for land based motor sports.

Method: Two forms of searches were conducted. First, a formal Medline search using a series of keywords and search terms aimed at identifying articles and journals that dealt specifically with motor sports medical and rescue issues. Second, a more general Google search, again using a series of keywords and search terms, aiming to identify other sources that deal with motor sport medical and rescue topics.

Results: The Medline search produced 41 articles of which 26 (63%) were relevant to motor sports and 20 (48.7%) were specifically written with motor sports as the primary focus. The Google search produced an enormous quantity of results, of which the great majority were official news sites, fan sites and manufacturer sites. Very few dealt with medical or rescue topics with an aim of education or adding new knowledge.

Conclusions: The majority of motor sports medical and rescue practice seems to have been extrapolated from hospital and pre-hospital emergency service practice, with little or no validation. There are a small number of groups that are looking specifically at the motor sport environment, however accessing their findings is not always easy and usually requires some form of membership.

Introduction

At the heart of any specialty is having the correct information. Medical and rescue practice in the motor sports environment is no different. It has seen an evolution over the past 20 to 30 years, having commenced as a number of individuals with an interest turning up to events and providing assistance on a relatively ad hoc basis and progressed to the development of dedicated rescue services, extrication teams and medical support agencies servicing local club and high level international events. Over that time, an enormous amount of experience has been gathered and practices have been modified to suit the required tasks.

There is prior experience of extrapolating practices from one roughly similar practice to another only to find that they don't work as predicted, or at all. Trauma practices applicable to large high level centres don't necessarily translate to regional centres. The use of certain equipment doesn't

always show the same benefits when transferred to other specialties (e.g. BIS monitors in anaesthesia have been fraught with difficulties when applied to ICU populations). These discrepancies may be due to differences in populations, resources, experience or environments.

To provide the best service to our population of interest, we should at least attempt to ensure that what we do is valid. Additionally, disseminating that information with as few barriers as possible has a number of benefits, including:

- avoiding individuals having to re-invent the wheel
- assisting new, or less experienced, practitioners to improve their service
- improving the specialty's reputation amongst peers

In order to begin to identify possible gaps in care, the first step is usually to identify what already exists. So, this study was conducted as an initial attempt to fill some of this void.

Methods

A dual Medline and Google search was conducted in order to identify the nature and accessibility of information regarding medicine and rescue topics in the arena of motor sports. Key search terms were developed to detect articles and content that related specifically to medical and rescue practices within land-based motor sport. Water and air based motor sports were excluded, in order to narrow the search focus. Articles were identified by their titles and abstracts. Once collected, abstracts were reviewed to determine their relevance to motor sport and further separated into those in which a motor sport population was the primary focus and those in which a motor sport population contributed to a larger study population or was mentioned only in passing. The search result are presented below in Tables 1 and 3.

Table 1. - Medline search terms

Search terms	Articles identified
“motor sport”	10
“motorsport”	3
“track side”	2
“trackside”	3
“race car”	13
“saloon car”	3
“rally car”	3
“HANS device”	0
“roll cage”	0
“sand trap”	3
“gravel trap”	0
“crash barrier”	1
Total	41
Relevant	26/41 (63%)

Focus (Primary study population were engaged in a motorsporting event)	20/41 (48.7%)
Mentioned in passing (represented a portion of the overall study population, but not key to the study outcomes)	6/41 (14.6%)

The time taken to find and sort through these Medline articles was not particularly long, being completed within an hour. The articles appeared in select types of journal, as shown below.

Journal type

- Basic sciences: 3
- Sports physiology & medicine: 8
- Clinical: 4
- Other: 5

The topics dealt with by these articles were:

- Injury pattern: 6
- Medical service provision: 3
- Physiology & competitor training: 6
- Technical: 1
- Other: 4

Only 3 papers specifically mentioned participants other than immediate competitors; i.e. support crew, officials, spectators.

Only one article was freely available (see Table 2. - Medline motor sports article search). All of the others required paid subscription or purchase of the individual article. In NSW, the development of the Clinical Information Access Program (CIAP – www.ciap.com.au) has greatly improved clinicians' access to useful journals, but even by this route, only 4 of the 41 articles could be freely accessed.

A reference to an Australian Journal of Motorsports Medicine and Safety was found, via a referenced article (22), however, the journal could not be found on either Medline, Pubmed nor Google and has presumably been discontinued and removed from subscription lists.

Table 2 - Medline motor sports article search

Title	Journal	Free publication
Open-wheel race car driving: energy cost for pilots.	Journal of Strength & Conditioning Research. 24(11):2927-32, 2010 Nov.	Yes
Trunk extensor and flexor strength of long-distance race car drivers and physically active controls.	Journal of Sports Sciences. 28(11):1183-7, 2010 Sep.	No
Tobacco advertising through French TV in 2005: frequent illicit broadcasting; its impact on	Journal of Public Health. 32(2):184-90, 2010 Jun.	No

teenagers and young adults.		
Visual acuity in young elite motorsport athletes: a preliminary report.	Physical Therapy in Sport. 11(2):47-9, 2010 May.	No
Diabetes at 100 mph. Catching up with Charlie Kimball, a race car driver with type 1.	Diabetes Forecast. 62(10):42-3, 2009 Oct.	No
Cardiovascular data acquisition in a dynamic motion environment.	Aviation Space & Environmental Medicine. 79(4):416-9, 2008 Apr.	No
The effect of biofeedback training on affective regulation and simulated car-racing performance: a multiple case study analysis.	Journal of Sports Sciences. 26(7):761-73, 2008 May.	No
Responses of motor-sport athletes to v8 supercar racing in hot conditions.	International journal of sports physiology & performance. 2(2):182-91, 2007 Jun.	No
Reactivity, stability, and strength performance capacity in motor sports.	British Journal of Sports Medicine. 40(11):906-10; discussion 911, 2006 Nov.	No
Ototoxic occupational exposures for a stock car racing team: I. Noise surveys.	Journal of Occupational & Environmental Hygiene. 2(8):383-90, 2005 Aug.	No
Alfred E. Moss: 1924 Indy 500 race driver, British dentist and father of Sir Stirling Moss.	Journal of the History of Dentistry. 53(1):3-9, 2005 Mar.	No
The place of motorsport in public health: an Australian perspective.	Health & Place. 11(4):379-91, 2005 Dec.	No
Injuries in professional motor car racing drivers at a racing circuit between 1996 and 2000.	British Journal of Sports Medicine. 38(5):613-6, 2004 Oct.	No
Symptoms of musculoskeletal disorders in stage rally drivers and co-drivers.	British Journal of Sports Medicine. 35(5):314-20, 2001 Oct.	No
The combined effect of heat and carbon monoxide on the performance of motorsport athletes.	Comparative Biochemistry & Physiology. Part A, Molecular & Integrative Physiology. 128(4):709-18, 2001 Apr.	No
Performance enhancement in rally car drivers via heat acclimation and race simulation.	Comparative Biochemistry & Physiology. Part A, Molecular & Integrative Physiology. 128(4):701-7, 2001 Apr.	No
Travel medicine advice to UK based international motor sport teams.	Journal of Travel Medicine. 7(5):267-74, 2000 Sep-Oct.	No

What are the requirements for medical cover at motor racing circuits?.	Injury. 30(4):293-7, 1999 May	No
Stress hormonal factors, fatigue, and antioxidant responses to prolonged speed driving.	Pharmacology, Biochemistry & Behavior. 60(3):747-51, 1998 Jul.	No
Medical team coverage of motor sports events.	Journal of the American Osteopathic Association. 96(3):179-80, 1996 Mar.	No

The majority of search results via Google (www.google.com.au/) pulled out websites for rescue agencies and sports physicians along with fan sites, official and non-official news sites and companies involved in the manufacturing of various items of motor sport paraphernalia, from car parts to race suits. More targeted searches, looking for specific topics (see Table 3. - Google search terms) generally returned high result counts. However, again the majority of sites related to companies advertising their products. Other sites that were represented included blogs, adds for textbooks, journals and articles that mentioned motor sports in passing, information on public roads trauma and sites that have since been removed or made otherwise defunct. Some of the sports medicine sites provided useful general information about the immediate and ongoing management of soft tissue injuries, but little of it was tailored specifically towards motor sport.

There were a selection of YouTube (www.youtube.com/) videos demonstrating various aspects of motor sport medical and rescue procedures, from graphic crashes to extrications and the use of pieces of equipment such as intraosseus canula insertion devices, helmet removal and hard collar application. These videos appeared quite useful as general introductions to such procedures, though many of the videos posted are conducted by public emergency medical service instructors and military personel or at public roadside traumas. While there are some motor sport specific videos, mostly crashes, again it can take some time to find the helpful ones, many of which are industry product promotional videos.

Table 3. – Google search terms

Search term	Result count
“motorsport medicine” & “motor sport medicine”	About 9,300,000 results
“motorsport rescue” & “motor sport rescue”	About 9,260,000 results
“race car fire suppression”	About 121,000 results
“race track gravel trap”	About 295,000 results
“race track crash barrier”	About 765,000 results
“HANS device”	About 115,000 results
“roll cage”	About 2,100,000 results
“race car extrication”	About 193,000 results
“motor sport head injury	About 3,660,000 results
“motor sport chest injury”	About 891,000 results
“motor sport abdominal injury”	About 119,000 results

“motor sport pelvis injury”	About 311,000 results
“motor sport spinal injury”	About 1,260,000 results
“motor sport limb injury”	About 388,000 results

Discussion

A significant quantity of time was required to refine search terms and trawl through pages of search results in order to find articles that help to answer a specific question. From my own experience in putting together the ASMMR newsletter, it can take several days of trudging to put together enough reliable information to write an article. This is particularly so when tackling a topic on which I am a complete novice, such as engineering, track design or car parts. Very little appears to be overtly evidence based, aside from studies that quote populations to whom motor sports incidents contribute a given proportion and equipment advertised by companies, which one can only assume has been subjected to the relevant engineering tests.

In the recent few years, official organisations such as the FIA and CAMS have begun to take hold of this and started to open up developments in which they have been engaged (See Table 4. - Specific sites). The FIA has established the FIA institute, which aims to promote advances in competitor safety through engineering, training and education and research activities. Similarly, CAMS has established the Australian Institute for Motor Sport Safety (AIMSS) with a similar agenda. Both groups fall down a little on making information on developments easily accessible to those with an interest and it is even harder to register interest in being involved or to contribute data. There is a reliance on individuals landing on their respective sites and hunting for information or joining up and receiving a newsletter. With the expansion of social media (e.g. Blogs, Twitter, Facebook, RSS feeds) and mobile devices (e.g. smart phones, tablet devices), perhaps useful information for medical and rescue individuals and agencies could be more readily distributed and even collated by generating a network of and for these individuals and agencies.

Perhaps the knowledge that exists in standard hospital and community medical and rescue practice is sufficient and can be extrapolated across to the motor sports arena. An intraosseous canula is inserted the same way, whether on a hospital resuscitation trolley or by the side of a race track. But this is likely not to be entirely true. We already know that studies showing benefit to particular procedures conducted in large university, tertiary level, specialty specific hospitals does not necessarily translate across to smaller or regional hospitals. Pre-hospital practices require specific training, as evidenced by emergency medical service training programs and aeromedical retrieval orientation programs. So it would seem reasonable that motor sports too, being a relatively specialised environment with particular rescue, clinical, logistical and commercial demands, might need some special attention. The FIA have recently released a motor sport specific medical textbook, “Medicine in Motor Sport”, to address this. Therefore there would seem to be an argument for collecting useful audit information and examining it to generate research questions. Maybe strict evidence generation will be difficult to generate in the form of randomised control trials, but let's face it, the majority of resuscitation practice is based on international guidelines that are derived largely from expert opinion and observational studies. Many of the recommended interventions have little evidence to support clinically meaningful outcomes.

Table 4. – Specific sites

The Federation Internationale de l'Automobile (FIA) & FIA Institute

<http://www.fiainstitute.com/Pages/homepage.aspx>

The world body responsible for the regulation and sanctioning motor sporting categories and events.

Publications:

A full set of technical regulations for all FIA sanctioned motor sport categories

- IQ (Institute Quarterly) – A quarterly journal whose first edition was released in March 2011. Its stated aim is to “focus on the main areas of competence covered by the FIA Institute, namely safety, sustainability, innovation and excellence” and take “an intelligent look at some of the major issues in motor sport and motoring, and provide a platform for discussion and debate.” Its target audience “include teams, drivers and promoters in major motor racing championships including F1, World Rally, NASCAR, IRL, World Touring Car, GT and Karting; companies and individuals involved in motor sport and motoring; safety and sustainability organisations; and leading players in motor sport and automotive research and development.” The current issue contains 6 articles, covering driver training, safety initiatives, technical developments and the building of the new F1 circuit in Delhi, India.
- Medicine in Motor Sport | 01.2011 – the FIA’s textbook of medicine in motorsport. Available online via the FIA institute or, for purchase through Amazon.com (US\$4.99) to be read on Kindle, iPad, iPhone and Android devices. It also come with a text-to-speech function. The first section covers the motor sport environment, while the second covers clinical issues.
- Facility improvement programme - best practice framework | 07.2009 - a free download on developing and designing race venues
- Officials safety training programme - accreditation guidelines | 05.2009 - a free download that explains what is needed for national sporting associations to become accredited for the Officials Safety Training Programme.
- Officials safety training programme - best practice framework | 04.2009 - a free download that outlines how to go about official training.
- Young driver safety programme - best practice framework | 04.2009 – a free download
- Guide to funding motor sport safety | 03.2009 – a free download outlining how to access FIA grants for motor sport safety projects
- Formula for Safety | 10.2006 - a free download covering the work of the FIA Institute. However, it is not updated and will probably be replaced by the QI journal
- Anti-Doping Guide for Drivers | 01.08.2006 – a free download
- An additional number of articles are available to view, covering research, education, interactions with industry and plans for sustainability.

The Confederation of Australian Motor Sport (CAMS)

<http://www.cams.com.au/>

The Australian motor sport regulatory body

A full set of technical regulations for all of the Australian motor sport categories

Safety information for selected events under the CAMS Safety 1st program –

http://www.cams.com.au/Safety/Safety_in_Motor_Sport/Safety_1st_at_events/. Includes some checklists to consider when setting up an event.

The Australian Institute for Motor Sport Safety (AIMSS)

(<http://www.aimss.com.au/>)

AIMSS is the CAMS equivalent of the FIA Institute.

Research conducted by AIMSS can be found at <http://www.aimss.com.au/en/Research.aspx>, however, it is not frequently updated and the few studies commented upon are largely still in their early stages

The International Council of Motorsports Sciences (ICMS)

(http://www.icmsmotorsportsafety.org/International_Council_of_Motorsport_Sciences/ICMS_-_Home_Page.html)

A group of “professional persons interested in the scientific, medical and educational aspects of the human element in motor sport” based in Indiana in the USA. They generate engineering and safety research and host an annual conference (The World Council of Motorsport Sciences). There is very limited information available to public access. Membership is open to anyone, after completing a registration form and paying a subscription. Despite the “International” part of their title, they mostly cater for the US events.

Generating a data base and producing guidelines seem like a good place to start. Similar processes have led to the establishment of organisations such as the Brain Trauma Foundation, Trauma.org, road traffic accident registries and other similar agencies. Given the existence of a number of motor sport medical and rescue agencies across Australia, many of which have been active for anywhere from 5 to 20 years, there should be a huge quantity of useful data lying about, from which interesting hypotheses and questions could be generated, leading to informative and practice-confirming, or altering, publications. These could then be used by existing practitioners and newcomers looking to start out alike. To an extent, this is already occurring in America, through groups like The International Council of Motorsports Sciences. Though still a relatively closed group, requiring a membership fee to join in, it is at least a start. Why not Australia? We already have a motor sporting pedigree, being one of only two groups in the world (the other being the UK) accredited by the FIA to train other regions to prepare and host a sanctioned motor sport event and have Australian representation amongst the ranks of the FIA.

This study has its limits. The search terms were not validated prior to use and may not have picked up additional articles and resources. However, they are likely to be representative and thus still give a fair indication of existing resources. Also, given the high result count returned by the Google searches, only a selected proportion of the articles were reviewed for content, by title or abstract. Therefore, a number of relevant articles are likely to have been missed. However, this reflects the hit-and-miss nature of web searches and the effort that needs to be invested to turn up resources of interest.

Conclusion

There is not much good quality motor sport specific medicine and rescue information out there and that which exists is difficult to quickly locate or is not freely available. This may in part result in individuals interested in getting involved in motor sports medicine and rescue being put off and

ultimately not signing up. At the same time, there seems to be little reason why this should be so. There is data out there and, with the surge in social media forms, it should be fairly easy to get hold of it and present it in easily disseminated and digestible formats. Doing so has several benefits, including enhancing our standing as a specialised area, improving recruitment for agencies and events and at very least, a way of creating a functional community that can be confident in the processes and techniques it adopts and has a way of identifying and adapting those that don't.

Open disclosure

No competing interests declared

References

1. Open-wheel race car driving: energy cost for pilots. Beaune B. Durand S. Mariot JP. *Journal of Strength & Conditioning Research*. 24(11):2927-32, 2010 Nov.
2. Trunk extensor and flexor strength of long-distance race car drivers and physically active controls. Baur H. Muller S. Pilz F. Mayer P. Mayer F. *Journal of Sports Sciences*. 28(11):1183-7, 2010 Sep.
3. Tobacco advertising through French TV in 2005: frequent illicit broadcasting; its impact on teenagers and young adults. Beguinot E. Gallopel-Morvan K. Wirth N. Spinosa A. Martinet Y. *Journal of Public Health*. 32(2):184-90, 2010 Jun.
4. Visual acuity in young elite motorsport athletes: a preliminary report. Schneiders AG. John Sullivan S. Rathbone EJ. Louise Thayer A. Wallis LM. Wilson AE. *Physical Therapy in Sport*. 11(2):47-9, 2010 May.
5. Diabetes at 100 mph. Catching up with Charlie Kimball, a race car driver with type 1. Sistrunk J. *Diabetes Forecast*. 62(10):42-3, 2009 Oct.
6. Cardiovascular data acquisition in a dynamic motion environment. Mallows RJ. Newman DG. *Aviation Space & Environmental Medicine*. 79(4):416-9, 2008 Apr.
7. The effect of biofeedback training on affective regulation and simulated car-racing performance: a multiple case study analysis. Edmonds WA. Tenenbaum G. Mann DT. Johnson M. Kamata A. *Journal of Sports Sciences*. 26(7):761-73, 2008 May.
8. Responses of motor-sport athletes to v8 supercar racing in hot conditions. Brearley MB. Finn JP. *International journal of sports physiology & performance*. 2(2):182-91, 2007 Jun.
9. Reactivity, stability, and strength performance capacity in motor sports. Baur H. Muller S. Hirschmuller A. Huber G. Mayer F. *British Journal of Sports Medicine*. 40(11):906-10; discussion 911, 2006 Nov.
10. Ototoxic occupational exposures for a stock car racing team: I. Noise surveys. Van Campen LE. Morata T. Kardous CA. Gwin K. Wallingford KM. Dallaire J. Alvarez FJ. *Journal of Occupational & Environmental Hygiene*. 2(8):383-90, 2005 Aug.
11. Alfred E. Moss: 1924 Indy 500 race driver, British dentist and father of Sir Stirling Moss. Christen JA. *Journal of the History of Dentistry*. 53(1):3-9, 2005 Mar.
12. The place of motorsport in public health: an Australian perspective. Tranter PJ. Lowes MD. *Health & Place*. 11(4):379-91, 2005 Dec.
13. Injuries in professional motor car racing drivers at a racing circuit between 1996 and 2000. Minoyama O. Tsuchida H. *British Journal of Sports Medicine*. 38(5):613-6, 2004 Oct.
14. Symptoms of musculoskeletal disorders in stage rally drivers and co-drivers. Mansfield NJ. Marshall JM. *British Journal of Sports Medicine*. 35(5):314-20, 2001 Oct.
15. The combined effect of heat and carbon monoxide on the performance of motorsport

- athletes. Walker SM. Ackland TR. Dawson B. Comparative Biochemistry & Physiology. Part A, Molecular & Integrative Physiology. 128(4):709-18, 2001 Apr.
16. Performance enhancement in rally car drivers via heat acclimation and race simulation. Walker SM. Dawson B. Ackland TR. Comparative Biochemistry & Physiology. Part A, Molecular & Integrative Physiology. 128(4):701-7, 2001 Apr.
17. Travel medicine advice to UK based international motor sport teams. Walters A. Journal of Travel Medicine. 7(5):267-74, 2000 Sep-Oct.
18. What are the requirements for medical cover at motor racing circuits?. Chesser TJ. Norton SA. Nolan JP. Baskett PJ. Injury. 30(4):293-7, 1999 May.
19. Stress hormonal factors, fatigue, and antioxidant responses to prolonged speed driving. Tsopanakis C. Tsopanakis A. Pharmacology, Biochemistry & Behavior. 60(3):747-51, 1998 Jul.
20. Medical team coverage of motor sports events. Hunter HC. Journal of the American Osteopathic Association. 96(3):179-80, 1996 Mar.
21. Early Management of Severe Trauma - What is it? Griggs WM. Aust. J of Motorsport Medicine and Safety. 1990 June:2(3);22.
22. Review of Criteria for Return to Competitive Motor Sports Following Significant Head Injury. Griggs WM. Aust. J of Motorsport Medicine and Safety. 1990 Oct:2(4); 18-20.
23. Road Safety and the Real World. Griggs WM. Aust J Motorsport Med and Safety. 1990 Oct:2(4); 22-24.
24. Airway Management in Acute Trauma. Aust J Motorsport Med and Safety. Griggs WM. 1991 Jul: 3(3);12.
25. Chest Injuries and Respiratory Management in Acute Trauma. Griggs WM. Aust J Motorsport Med and Safety. 1991 Dec:3(4);18-19.
26. The Assessment of Circulatory Status in Acute Trauma. Griggs WM. Motorsport and Safety. 1992 Jul:4(1);15-16.
27. The Management of the Circulation in Acute Trauma. Griggs WM. Motorsport and Safety. 1992 Oct:4(2);12-13
28. <http://www.youtube.com/>



Recent race results

Formula 1

1. Sebastian Vettel, Red Bull Racing - 143 2. Lewis Hamilton, Vodafone McLaren Mercedes - 85 3. Mark Webber, Red Bull Racing - 79 4. Jenson Button, Vodafone McLaren Mercedes - 76 5. Fernando Alonso, Scuderia Ferrari Marlboro - 69 6. Nick Heidfeld, Lotus Renault GP - 29 7. Nico Rosberg, Mercedes GP Petronas F1 Team - 26 8. Felipe Massa, Scuderia Ferrari Marlboro - 24	9. Vitaly Petrov, Lotus Renault GP - 21 10. Kamui Kobayashi, Sauber F1 Team - 19 11. Michael Schumacher, Mercedes GP Petronas F1 Team - 14 12. Adrian Sutil, Force India F1 Team - 8 13. Sebastien Buemi, Scuderia Toro Rosso - 7 14. Rubens Barrichello, AT&T Williams - 2 = Paul di Resta, Force India F1 Team - 2 = Sergio Perez, Sauber F1 Team - 2	17. Pastor Maldonado, AT&T Williams - 0 = Jaime Alguersuari, Scuderia Toro Rosso - 0 = Jarno Trulli, Team Lotus - 0 = Heikki Kovalainen, Team Lotus - 0 = Narain Karthikeyan, Hispania Racing F1 Team - 0 = Vitantonio Liuzzi, Hispania Racing F1 Team - 0 = Timo Glock, Marussia Virgin Racing - 0 = Jerome d'Ambrosio, Marussia Virgin Racing - 0
--	--	--

Next race: Round 7 of 19 - June 12th, Montreal, Canada.

World Rally Championship

Nice to see Mini Cooper back on the world rally circuit. For for anyone who hasn't heard by now, Volkswagen are planning to enter the fray in 2013 and will field two Skodas next year to test the water.

1. Sebastien Loeb, Citroen Total - 126 2. Mikko Hirvonen, Ford Abu Dhabi - 113 3. Sebastien Ogier, Citroen Total - 96 4. Jari-Matti Latvala, Ford Abu Dhabi - 74	5. Petter Solberg, Petter Solberg Racing - 61 6. Mads Østberg, M-Sport Stobart Ford - 48 7. Matthew Wilson, M-Sport Stobart Ford - 28 8. Federico Villagra, Munchi's Ford - 20	9. Kimi Raikkonen, ICE1 Racing - 18 10. Henning Solberg, M-Sport Stobart Ford - 10 11. Juho Hanninen, Skoda Fabia S2000 - 8 12. Dani Sordo, MINI - 8
--	---	---

Next event: Round 7 of 13 - June 17th – 19th Greece

V8 Supercars

1. Jamie Whincup 1234	5. Shane van Gisbergen 913	9. Will Davison 813
------------------------------	----------------------------	---------------------

2. Craig Lowndes 972 3. Garth Tander 935 4. Jason Bright 920	6. Rick Kelly 887 7. Steven Johnson 833 8. Alex Davison 825	10. Mark Winterbottom 797 11. Fabian Coulthard 721 12. Lee Holdsworth 646
--	---	---

Next round: Round 7 of 15 - June 17th - 19th Skycity Triple Crown, Darwin

MotoGP

1. Jorge Lorenzo, Yamaha Factory Racing - 98 2. Casey Stoner, Repsol Honda Team - 91 3. Andrea Dovizioso, Repsol Honda Team - 63 4. Dani Pedrosa, Repsol Honda Team - 61 5. Valentino Rossi, Ducati Marlboro Team - 58 6. Nicky Hayden, Ducati Marlboro Team - 47	7. Hiroshi Aoyama, San Carlo Honda Gresini - 36 = Ben Spies, Yamaha Factory Racing - 36 9. Marco Simoncelli, San Carlo Honda Gresini - 32 10. Cal Crutchlow, Monster Yamaha Tech 3 - 30 11. Héctor Barberá, Mapfre Aspar Team - 26	12. Karel Abraham, Cardion AB Motoracing - 24 13. Colin Edwards, Monster Yamaha Tech 3 - 21 14. Toni Elías, LCR Honda MotoGP - 20 15. Loris Capirossi, Pramac Racing Team - 16 16. Álvaro Bautista, Rizla Suzuki MotoGP - 11
---	--	--

Next round: Round 6 of 18 - June 10th - 12th Silverstone, Great Britain.

Intercontinental Rally Challenge

There are a few current and former WRC drivers and co-drivers mixed in with the IRC crowd. Francois Delacour and Toni Gardemeister are in the top 10, while further back you can find Petter Solberg with Chris Patterson (Peugeot 207 S2000), Henning Solberg with Ilka Minor (Ford Fiesta S2000) and Chris Atkinson with Stephane Prevot (Proton Satria Neo S2000).

1. Juho Hänninen, Skoda Fabia S2000 – 58 2. Jan Kopecky, Skoda Fabia S2000 – 55 3. Bryan Bouffier, Peugeot 207 S2000 - 49 4. Thierry Neuville, Peugeot 207 S2000 - 48	5. Freddy Loix, Skoda Fabia S2000 - 45 6. Guy Wilks, Peugeot 207 S2000 - 35 7. Andreas Mikkelsen, Skoda Fabia S2000 – 28 8. Bruno Magalhães, Peugeot 207 S2000 14	9. Pierre Campana, Peugeot 207 S2000 – 12 10. Stéphane Sarrazin, Peugeot 207 S2000 – 12 11. Toni Gardemeister, Peugeot 207 S2000 - 12 12. Francois Delacour, Peugeot 207 S2000 - 10
---	--	--

Next event: Round 5 of 12 - Jun 23rd - 25th, Geko Ypres Rally, Belgium



Caught by the cameras



The medical and rescue team doing their thing at the Nuerburgring in 2007, after Lewis Hamilton came off the circuit during qualifying when his front suspension collapsed and the tyre was punctured. Kimi Raikonen, now racing in the WRC series, took pole for Ferrari and went on to claim the championship with 110 points; just clipping Lewis Hamilton in 2nd and Fernando Alonso in 3rd, both on 109 points.

